

7910 CTGCTTACGGCTACACAGCCGATATCCCTTCTCCGGTTCCCTCTTGTGCTCATTGCAACACAGG 7969
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
GACGAAGTCCGAGTGGTCCGCATAGGAAAGAGCCAAAGGAGAACACGAGTGACGTTGGTCC
Q K V S V * Q L W
<---ORF6

7970 CTTCCGGCGCGCGCGCGGAGGCCACCGCGGGAAGTCTCGTCCAGTTCCGACAGCG 8029
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
GAAGCGCGCGCGCGCGCGCTCCGGTGGCGCCCCCTCTTAGAGCAGGTTCAAGCCTGTCCG
A E P A A G G S A V A P F I E D L E S L

8030 CCTGCTCGTCCAGGGTCATCGCGGACGCCCTTCAGCGCGGAGTCGAGCTTCTCGGGGGTTC 8089
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
GGACGAGCAGGTCCCACTAGCGCCTGCGGAAGTCGCGCCTCAGCTCGACGAGCCCCCAAG
A Q E D L T M A S A K L A S D L Q E P T

8090 GCGGGCCGATGACGGCGCGCGCGATGCCGGCGCGGACAGCACCCATGCCGAGCCCCACCT 8149
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CGCCCGGCTACTGCCGGCGCGCGCTACGGCGCGCGCCCCCTGTCGTGGGTACGCTCGGGGTGGA
R P G I V A G A I G P R S L V W A L G V

8150 CGGCGCGGGTCTTCGCGGAGGTTCGCGGACAGAACCTTCCTCTAGGCCCTCGATTCGCGCGCGCA 8209
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
GCCGCGCCAGAACGGCTCCAAACGCCGTCTTGAAGAGCATCCGGAGCTAGCGGCCCGCGT
E A P D E G L N R C F K E Y A E I A P R

8210 GGGACGGCAACAGCACCTGCGCACGGCCCCCTGCCCGGACCTTCACCGCGGTGCCCGCGGCA 8269
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CCCCTGCCGTTGTCGTGACGCGTGCCTGGGACGCGGCTGAAGTGGGGCCACGGCGCGCGGT
L S P L L V Q A R G Q A S K V A T G A A

8270 GCTTCTCCAGCGCTCCGCTGAGCAGGCCCGCGGTGCAGCGCGGACCGAGCGGAAGACGCCGA 8329
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CGAAGAGGTCCGAGGCGACTCGTCCGGCGGACAGTCCGCCGCTGGTTCGCGCTTCTGCGGCT
L K E L A G S L L G G H L P S W A F V G

FIGURE 2

8330 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
GCCCGTAGGCCCTGCGCGCGCGGCGCAGCACCTCCAGCTCGGCGTGGCGGACCGCCAGGTGTGT
CGGGCATCCGGACGCGCGCGCGCGTGGTGGAGTTCGAGCCGACCGGCTGGCGGTCCAACA
L G Y A Q A A P L V F L E A H R V A L N 8389
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
8390 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
ACAGGCACCTGGTGGGAGACCAAGCCCGAGGAGTGGCGGCGGGCGGCTTCCTCTGCGCGG
TGTCCGTGACCAACCTCTGGTACCGGTCCCACCGCGCGCGCGCGCAAGAGGACGCGCC
Y L C Q H S V M G L S H R R A A N E Q A 8449
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
8450 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CGGCGATGTGCCAGCGCGCGAAGTTCGACGAGCGCAGTAGGAGACCTTGCGCGCTGGCGA
GCCGCTACACGGTCGGGCGCTTCAAGCTTGCCTGGCTGCATCCTCTGGAACGCGCAGCCGCT
A A I H W G A F N S S G V Y S V K G S A 8509
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
8510 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CGAGGCTGTCCAAGGCTGCCACACCTTCGTCACCGCGCGGACCGTTCGATGTGGTGCA
GCTCCGACAGGTACCGGACGGTGTGGAGCAGGGTCCCGCGCGCTGGCCAGCTACACCACGT
V L S D M A Q W V E D W P A S R D I H H 8569
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
8570 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
TCTGTAGACGTTCGATGTGGTTCGACGCCACGCTTCGCGACCGATCCCTCCGAGGAGCGA
AGACCACTGCAGCTACACAGCTTCGGGTTCGACCGCTCGCTAGGGAGCGTCTCCGCT
M Q Y V D I H D V G L R R L S G E C S A 8629
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
8630 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
TGATGTGCCGCGCGGACAGCCCCGTGTGTGTTCGACCGCTTCGCTCATCTCGCCCGCGACCT
ACTACACGCGCGGCTGTCCGGCGGACAGCAACTTCGCGGAGCGAGTAGAGCGCGGCTGGA
I I H R A S L G S D N V R E S M E G G V 8689
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
8690 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
TGGTCGCCAGCAGGTGTCTCGGCGGTTCGCGCGCGCTGGCGCAGCCACCTGCCCCACCA
ACGAGCGGTGTCACAGGAGCGGCGGCGGCGGCGGCGGCGGCTCGGTGGACGGGTGGT
K T A L V T D E R R G G G Q A L W R G V 8749

FIGURE 2

8750 GCATCCCTCGGTGTCGGCCCTTGTAGAGCCGCCAGCCGTPACATGTCGGCGGTGTCGAGGCAGT
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CGAGGAGCCACACCGGGAACATCTCGGCGGTTCGGCATGTACAGCCGCCACAGCTCCGTCA
LEET H G K Y L R W G Y M D A T D L C
8810 TGATGCCGGGTCCCGGGCGTGGTCCATCAGGCGCAGCGGTTCGTCTTCGACCGGTC
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
ACTACGGCGCCAGGCCCGCACCCAGGTAGTCCGGCGTCGGCGCAGCAGCAGGAGCTGCCGAG
N I G R D R A H D M L R L A D D E V R
8870 CGCTGAAGTTCACCGTCCCGAGCCAGAGCCTGCTGGTGAAGCAGCGCGGAAGCCCCGAGCC
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
GCGACTTCAAGTGGCACGGCTCGGTCTTCGGACGACCACTCGTTCGGCGCTTGGGGGCTCGG
G S F N V T G I, W L R S T L L A S R G L
8890 GCACGTGCGTCGGCGGTTCATTCGTTGGTTCCTTCCTTCCTTCGGGCCAGTTCCTC
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CGTGACGCAGCGCCGACGCCACCACTAGCACCAAGAGAGGAAGGACGCCGGTCAAGGAG
R V H T A A D T T M
<---ORF7 * R P E R R G A A L E E
8900 GCAGATGCCGACGACCTCGGCCGGTTCAGGCTTCGCGGAGCATGTCGTTCGGCATCCGCGC
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CGCTACGGCTGCTTGGAGCCGCCACATGCCGAGGCGCTCGTACAGCAGCGCGTAGGGCGG
C I G V V E A P S P E A L M D D R M R A
9050 CGCGCCGGCGGTGGGCCGGGTCTGAGGACCCCGCTCACCGACTCCCGGAGCTGGTC
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
GCGGGCGCGCCACCGGCCCGCAGCAGCTCTTCGGCGAAGTGGCTGAGGGCCTCGACCAG
A G A R H A P D D L V R K V S E R L Q D
9110 GGGGTACGTCGGGCACGGGCAGCGCATCCCCGCCCGAATTCCTGCGTGGCTGGCGTGGCG
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CCCCCAGTCGAGCCCCGTGCCCGTCGCGCTAGGGGGGGGGCTTAAGGACGCACGCGACGG
P T L E P V P L A I G A G F E Q T R Q A

[illegible]

FIGURE 2

9590 GGGGTCGATCGTCCAC'TGCCCGACGACCACCTCC'TCGTCGAAGCGCGCGCGCTACTT
 +-----+-----+-----+-----+-----+-----+-----+-----+
 CCCCAGC'TAGCAGGTGACGGGTGC'TGGTGGAGGAGCAGCTTCCGGCCCCGGCGGCATGAA
 P D I T W Q G V V E E D F A P G G Y K 9649

 9650 CTCCAGCGTCCAGGTAGCCACTCGGCGAGCGGGTCTCCCGGTGCTCTCCGGCTGGTC
 +-----+-----+-----+-----+-----+-----+-----+-----+
 GAGGTGCGAGGTCCACTCGG'TGAGCCGC'TGCCCCAGGAGGCCACGAGGAGGCCGACCCAG
 E L T W T L W E A L P D E R H E E P Q D 9709

 9710 GGGCAGCAGGCCGAGGAAGT'CTGTCCCGCGCCCGGG'TGG'TGA'TGTCGGGTCCCCACACAGCAG
 +-----+-----+-----+-----+-----+-----+-----+-----+
 CCGTCTCGTCCGGC'YCC'TCAAGACGGCGCGGGGCCCCACCAC'TACAGCCCCAGGGT'GTCTGTC
 P L L G L F N Q R A R T T I D P G W L L 9769

 9770 CCGCGCGT'CGCGCGT'CCGGT'CAACCGCGCGCGCGA'TGGCGCGCGGGAAGG'TGAGCGGGCTC
 +-----+-----+-----+-----+-----+-----+-----+-----+
 GCGCGCACCGCGCAAGGCCAGTGGCGCGCGCGGT'ACCCGCGCGCGCTCCAC'TCGCCGAG
 R A H P T G T V A A A I P A A F T L P E 9829

 9830 CCAGATGACCAGGTCCGGCGCGCCACT'CCGGCAGAACGAGACCATGCC'TTCGATGAGCGT
 +-----+-----+-----+-----+-----+-----+-----+-----+
 GGTC'TACTGGTCCAGCCCGCGGTGAAGGCCG'ICTTGTCTCGT'ACGGAAGCTACTCGCA
 W I V L D P R W K R C F S V M G E I L T 9889

 9890 GTCCGGGCTCATCAGGGCGTAGAAGGT'CGGGG'TGAGCACGGTCT'GCATGCCCGAGCAGGTG
 +-----+-----+-----+-----+-----+-----+-----+-----+
 CAGGCCGAGTAG'YCCCGCATCTTCCAGCCCCAC'ICG'IGCCAGACGTACGGGTCTGTCAC
 D P S M L A Y F T P T L V T Q M G L L H 9949

 9950 CTCCCAGGTCAAGGTGGCGGGTCCCGCTCCG'TGAAG'TCCAGGCTCCGGACGTAG'TCGAT
 +-----+-----+-----+-----+-----+-----+-----+-----+
 GAGGGTCCAGTTCCACCGCCCCCAGGGCGAGCGAC'TCAGGTCCGAGGCCCTGCATCAGCTA
 E W T L T A P D R E S F D L S R V Y D I 10009

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10010  GATGTCGTGGCCCCCGTGGGTCA TGAAGTCCACGAGGTCGACGTGGTGTCCCGACCGGGAC
+-----+-----+-----+-----+-----+-----+-----+-----+
CTACAGCACCGGGCGCACCCAGTACTTCAGGTGCTCCAGCTGCAGCCACGGCTGGGCCCTG
I D H G A H T M F D V L D V D T G V P V 10069

10070  GGCGGTCAGCCCCGGCGGGTGATGTCTCGGTGAGCGCCGGGGACGCGACCGACGCGGAC
+-----+-----+-----+-----+-----+-----+-----+-----+
CCGCCAGTCGGGCCCGCGGCCAC TACAGGAGCCAC TCGCGGCCCTCC TCGCTGGTGGCCTG
A T L G A A T I D E T L A P S A V V R V 10129

10130  C'TCGTGCCCCCGCGCGGAACGCCCA TCGAGGGGGACGAGGCCGGAAGAGGTGGCTCT'T'
+-----+-----+-----+-----+-----+-----+-----+-----+
GAGCACGGGGCGCGCGCC'T'GCGGGTACGC TCCCCCTGCT'CCGGCTCT'CCACCGAGAA
E H G A A R F A W A L P V L G F L H S K 10189

10190  GCTGGCCATGGAGGAGAAGACGACGCCCA TCGGCCTTACC TACAGCTCGACGGGGCAGC
+-----+-----+-----+-----+-----+-----+-----+-----+
CGACCGGTACCTCC TCTCTGCTGCGGTAGCCCCCAATGGAGTCT'CGAGCT'GCCCCCGTCC
S A M S S F V V R M * L E V P C 10249
<---ORF8

10250  GGTGTGTTCCCCCGCAGGACGGGTGATTCGGCGGCGCCCGGACGACCGGGCGCTGGGCGTGA
+-----+-----+-----+-----+-----+-----+-----+-----+
CCAAACCAAGGGCGTCC TGTCCCTAC TAGCCGCGCGCGGCTGC TGGCCCCGGCGACCCGCACT'
R N T G R L V P S R R R R R V V P G S P T' 10309

10310  GTCCGGGCAGCGCC T'TGGCCGCGCGCCCGCAGTCCGGCGGTGGCGAGCGCGGTGACCACT'
+-----+-----+-----+-----+-----+-----+-----+-----+
CAGGCCGTGCGGGAACCGCGCGCGCGGTACGCGCGCCACCGCTCGCGGCCACTGGTTCGA
L G P L A K A A A R L A A T A L A T V L 10369

10370  CCTCCAGCCTGCCCCGGGTGGCCCGCGA TGTCCCGACAGCGCGCGGTGCGGTGCGGGCGGT
+-----+-----+-----+-----+-----+-----+-----+-----+
GGAGGTGCGACGGCCCCACCGCGCTACACGGCTG TCGCGCGCCAGCCGACGCCCGCCCA
E E L R G P H G R H A S L A R D A D P R 10429

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FIGURE 2

10430 CCACGTCGAGGCGGTCGGGC'TCGGCGAAGACC'ICCGGGTCGGG'I'IGGCCGCCGCGACGA 10489
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
GGTGCAGCTCCGCCAGCCCGAGCCGC'ITCTGGAGGCCAGCGCCAACCGGCGGCGCTGC'T
D V D L R D P E A F V E P D R N A A A V
10490 CGACCACGACCTCC'ICGCC'TTCGCCGATCACGTGCTCGCCGAGCCGCGCACCTCTCGCGGTGG 10549
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
GCTGTGCTGGAGGAGCGGAAGCGGC'ITAG'ICACGAGCGGCTCGGCGTGGAGACGCCACC
V V V V E E G E G I V H E G L R V E A T
10550 CCGTGCGCGCGCTCCAGGTGCCAATGCCCGGTGCAGGCGCAGCACCT'ICGGCGACGG'ITCGCT 10609
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
GGCACGGCGGAGGTCCACGT'TACGGGCCACAG'ICCGCGT'CG'IGGAGCCGC'IGCCAAGCGA
A T R R E L H L A P H L R L V E A V T R
10610 GCGGCGCGCGGG'ICGTGCGCGA'ICCG'ITCGGCCAGCCCCGG'ITCGGCCGAGACGGCCA 10669
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CGCGCGCGCGCCAGCAGCCGCTAGGCAAGCCGCTCGGGGCCAAGCCGGCTC'IGCCCGGT
Q A A A P D D A I R E A L G P E A S V A
10670 GGACCGCG'ICGACCACGGT'ITCGCGGTCATC'ICGGCCCCGGC'GAACAGGGCGCGCAGT 10729
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CCTGGCGCAGCTGGTGCCACACAGCGCCAGTAGAGCCGGGGCGCGCTTG'ICCCGCGCGTCAC
L V A D V V T N A T M E A G A F L A R L
10730 CGGG'ICGGCGGGCAG'IGCCGCGACCGCTGC'TTCGGTCACCGCGAGCTGCTCGCGGC'TGA 10789
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
GCCCCAGCGCGCGCTCACGGCGCTGGCGGACGAGCCAG'IGGCGC'ICGACGACGCCCGGAC'T
A P D A P L A A V A A E T V A L Q Q P S
10790 GCTGGCGTCCAGGCTGACGCGGGCGTCCACCGCGCGCGCGCGAGCACTCCCGGTGCGC 10849
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
CGACCCGCGAGGTCCGAC'ITCGCCCCGCGAGGG'IGCGCGCGCGCGCGT'CG'IGAGCGCGACGCG
L Q A D L S V R A D W A A G R L V G A A

FIGURE 2

[illegible]

11270 TCATCTGGAGCTGCCC'GCCCCAGCCCCGGCGCGAT'CGGTCTG'GGTCATGAATTC
+-----+-----+-----+-----+-----+-----+-----+-----+ 11321
AGTAGACCTCGACGGACGGG'TCGGGCCCGCGCTAGCCAGCACCACTT'AAG
I M Q L Q R G L G A R D T T M
<---ORF9
* S N
<---ORF10

FIGURE 2

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43610 43630 43650
 TTTGACAGGTCCGCCACGCGTCCCCCTACTCGACGACCACGCAATGGGCGAACAATATAG
 43670 43690 43710
 GAAGGATCAAGAGGTTGACATCGCCTCGTCGAGCCAACGAACCTGTGAACATCTGCATGT
 43730 43750 43770
 TGACAAGATCAACGGCGGCTACCTACTGTGGTGGCCCCAGTGACGGGTTGCCGCACATCGC
 43790 43810 43830
 GCTGGGGAGATTCTTTGAATTTTCGCCCGTAGCACCGACCTGGAAAGCGAGCAAATGCTCC
 43850 43870 43890
 GGTGAATGGGATCAGTGATTCCCCGCGTCAATTGATCACCCCTTCTGGGCGCTTCCGGCTT
 V N G I S D S P R Q L I T L L G A S G F
 ORF13 --->
 43910 43930 43950
 CGTCGGGAGCGCGGTTCTGCGCGAGCTGCGCGACCCCGGTCCGGCTGCGCGCGGTTGTC
 V G S A V L R E L R D H P V R L R A V S
 43970 43990 44010
 CCGCGGGGAGCGCCCCGCGGTTCCGCCCGGCGCCGCGGAGGTCGAGGACCTGCGCGCCGA
 R G G A P A V P P G A A E V E D L R A D
 44030 44050 44070
 CCTGCTGGAACCGGGCCGGGCGCCGCGCGATCGAGGACGCCGACGTGATCGTGACCT
 L L E P G R A A A A I E D A D V I V H L
 44090 44110 44130
 GGTGGCGCACGCAGCGGGCGGTTCCACCTGGCGCAGCGCCACCTCCGACCCGGAAGCCGA
 V A H A A G G S T W R S A T S D P E A E
 44150 44170 44190
 GCGGGTCAACGTTCGGCCTGATGCACGACCTCGTTCGGCGCGCTGCACGATCGCCGCAGGTC
 R V N V G L M H D L V G A L H D R R R S
 44210 44230 44250
 GACGCGCGCCCGTGTGCTCTACGCGAGCACCGCACAGGCGCGGAACCCGTCGGCGGGCCAG
 T P P V L L Y A S T A Q A A N P S A A S
 44270 44290 44310
 CAGGTACGCGCAGCAGAAGACCGAGGCCGAGCGCATCCTGCGCAAAGCCACCGACGAGGG
 R Y A Q Q K T E A E R I L R K A T D E G
 44330 44350 44370
 CCGGGTTCGCGGGCGTGATCCTGCGGCTGCCCGCGCTCTACGGCCAGAGCGGCCCGTCCGG
 R V R G V I L R L P A V Y G Q S G P S G
 44390 44410 44430
 CCCCATGGGGCGGGGCGTGTCGACGCGATGATCCGGCGTGCCCTCGCCGGCGAGCCGCT
 P M G R G V V A A M I R R A L A G E P L
 44450 44470 44490
 CACCATGTGGCACGACGGCGGCGTGCGCCGCGACCTGCTGCACGTGAGGACGTGGCCAC
 T M W H D G G V R R D L L H V E D V A T
 44510 44530 44550
 CGCGTTCGCCCGCGCTGGAGCACACGACGCGCTGGCCGCGGCGACGTGGGCGCTGGG
 A F A A A L E H H D A L A G G T W A L G
 44570 44590 44610
 CGCCGACCGATCCGAGCCGCTCGGCGACATCTTCCGGGCGGTCTCCGGCAGCGTCGCCCCG
 A D R S E P L G D I F R A V S G S V A R
 44630 44650 44670
 GCAGACCGGCAGCCCCGCGGTCGACGTGGTCAACGTGCCCGCGCCCGAGCACGCCGAGGC
 Q T G S P A V D V V T V P A P E H A E A

FIGURE 3

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44690 44710 44730
 CAACGACTTCCGCGACGACGACATCGACTCCACCGAGTTCCGCGAGCCGGACCGGCTGGCG
 N D F R S D D I D S T E F R S R T G W R
 44750 44770 44790
 CCCCCGGGTTTCCCTCACCGACGGCATCGACCGGACGGTGGCCGCCCTGACCCCCACCGA
 P R V S L T D G I D R T V A A L T P T E
 44810 44830 44850
 GGAGCACTAGTGCGGGTACTGCTGACGTCCTTCGCGCACCGCACGCACCTTCCAGGGACTG
 E H *
 V R V L L T S F A H R T H F Q G L
 ORF14 --->
 44870 44890 44910
 GTCCCGCTGGCGTGGGCGCTGCGCACCGCGGGTCACGACGTGCGCGTGGCCGCCAGCCC
 V P L A W A L R T A G H D V R V A A Q P
 44930 44950 44970
 GCGCTCACCGACGCGGTTCATCGGCGCGGTCTCACCGCGGTACCCGTCGGCTCCGACCAC
 A L T D A V I G A G L T A V P V G S D H
 44990 45010 45030
 CGGCTGTTTCGACATCGTCCCGGAAGTCGCGCTCAGGTGCACCGCTACTCCTTCTACCTG
 R L F D I V P E V A A Q V H R Y S F Y L
 45050 45070 45090
 GACTTCTACCAACCGCGAGCAGGAGCTGCACTCGTGGGAGTTCTGCTCGGCATGCAGGAG
 D F Y H R E Q E L H S W E F L L G M Q E
 45110 45130 45150
 GCCACCTCGCGGTGGGTATACCCGGTGGTCAACAACGACTCCTTCGTCGCCGAGCTGGTC
 A T S R W V Y P V V N N D S F V A E L V
 45170 45190 45210
 GACTTCGCCCCGGGACTGGCGTCTGACCTGGTGCTCTGGGAGCCGTTACCTTCGCCGGC
 D F A R D W R P D L V L W E P F T F A G
 45230 45250 45270
 GCCGTGCGGCCCCGGGCTGCGGAGCCGCGCACGCCCCGGCTGCTGTGGGGCAGCGACCTC
 A V A A R A C G A A H A R L L W G S D L
 45290 45310 45330
 ACCGGCTACTTCCGCGGCGCGGTTCAGGCGCAACGCCTGCGACGGCCGCGGAGGACCGG
 T G Y F R G R F Q A Q R L R R P P E D R
 45350 45370 45390
 CCGGACCCGCTGGGCACGTGGCTGACCGAGGTGCGGGGCGCTTCGGCGCTCGAATTCGGC
 P D P L G T W L T E V A G R F G V E F G
 45410 45430 45450
 GAGGACCTCGCGGTGCGGCAGTGGTGGTTCGACCAAGTTGCCGCCGAGTTTCCGGCTGGAC
 E D L A V G Q W S V D Q L P P S F R L D
 45470 45490 45510
 ACCGGAATGGAAACCGTTGTGCGCGCGGACCTGCCCTACAACGGCGCGCTCGGTGGTTCCG
 T G M E T V V A R T L P Y N G A S V V P
 45530 45550 45570
 GACTGGCTCAAGAAGGGCAGTGCAGCTCGACGCATCTGCATTACCGGAGGGTTCTCCGGA
 D W L K K G S A T R R I C I T G G F S G
 45590 45610 45630
 CTCGGGCTCGCCGCCGATGCCGATCASTTCGCGCGGACGCTCGCGCAGCTCGCGCGATTC
 L G L A A D A D Q F A R T L A Q L A R F
 45650 45670 45690
 GATGGCGAAATCGTGGTTACGGGTTCCGGTCCGGATACCTCCGCGGTACCGGACAACATT
 D G E I V V T G S G P D T S A V P D N I

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FIGURE 3

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45710 45730 45750
 CGTTTGGGTGGATTTCGTTCCGATGGGCGTTCTGCTCCAGAACTGCGCGGGCGATCATCCAC
 R L V D F V P M G V L L Q N C A A I I H
 45770 45790 45810
 CACGGCGGGGCGGAACCTGGGGCCACGGCACTGCACCACGGAATTCGCGCAAATATCAGTT
 H G G A G T W A T A L H H G I P Q I S V
 45830 45850 45870
 GCACATGAATGGGATTGCATGCTACGCGGCCAGCAGACCGCGGAACCTGGGCGCGGGAATC
 A H E W D C M L R G Q Q T A E L G A G I
 45890 45910 45930
 TACCTCCGGCCGGACGAGGTGCGATGCGGACTCATTTGGCGAGCGCCCTCACCCAGGTGGTC
 Y L R P D E V D A D S L A S A L T Q V V
 45950 45970 45990
 GAGGACCCACCTACACCGAGAACGCGGTGAAGCTTCGCGAGGAGGCGCTGTCCGACCCG
 E D P T Y T E N A V K L R E E A L S D P
 46010 46030 46050
 ACGCCGCGAGGAGATCGTCCCGCGACTGGAGGAACCTCACGCGCCGCCACGCGGGCTAGCGG
 T P Q E I V P R L E E L T R R H A G *
 46070 46090 46110
 TTTCCGACCGACAAGTCCGTCCGACAGCACACCTCCGGAGGGAGCAGGGATGTACGAGGG
 M Y E G
 ORF15 --->
 46130 46150 46170
 CGGGTTTCGCCGAGCTTTACGACCGGTTCTACCGCGGGCCGGGGCAAGGACTACGCGGGCCGA
 G F A E L Y D R F Y R G R G K D Y A A E
 46190 46210 46230
 GGCCGCGCAGGTGCGCGGGCTGGTCAGAGACCGCCTGCCCTCGGCTTCCTCGCTGCTCGA
 A A Q V A R L V R D R L P S A S S L L D
 46250 46270 46290
 CGTGGCCTGCGGGACCGGCACCCACCTGCGCGCGGTTTCGCCGACCTCTTCGACGACGTGAC
 V A C G T G T H L R R F A D L F D D V T
 46310 46330 46350
 CGGGCTGGAGCTGTGCGCGGCGATGATCGAGGTGCGCCCGGCCGACGCTCGGCGGGCATCCC
 G L E L S A A M I E V A R P Q L G G I P
 46370 46390 46410
 GGTGCTGCAGGGCGACATGCGCGACTTCGCGCTGGATCGCGAGTTTCGACGCCGTACCTG
 V L Q G D M R D F A L D R E F D A V T C
 46430 46450 46470
 CATGTTTCAGCTCCATCGGGCACATGCGCGACGGCGCCGAGCTGGACCAGGCGCTGGCGTC
 M F S S I G H M R D G A E L D Q A L A S
 46490 46510 46530
 CTTCGCCCCGCCACCTCGCCCCCGGGCGGCGTGGTGGTGGTGAACCGTGGTGGTTCCCGGA
 F A R H L A P G G V V V V E P W W F P E
 46550 46570 46590
 GGACTTCCTCGACGGCTACGTGGCCGGTGACGTGGTGGCGGACGGCGACCTGACGATCTC
 D F L D G Y V A G D V V R D G D L T I S
 46610 46630 46650
 GCGCGTCTCGCACTCCGTGCGCGCCGGCGGCGGACCCGGATGGAGATCCACTGGGTCGT
 R V S H S V R A G G A T R M E I H W V V
 46670 46690 46710
 GGCCGACGCGGTGAACGGTCCGCGGCCACACGTGGAGCACTACGAGATCACGCTCTTCGA
 A D A V N G P R H H V E H Y E I T L F E

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46730 46750 46770
GCGGCAGCAGTACGAGAAGGCCTTCACCGCGGCCGGTTGCGCTGTGCAGTACCTGGAGGG
R Q Q Y E K A F T A A G C A V Q Y L E G
46790 46810 46830
CGGACCCTCCGGACGCGGGTTGTTCTCGGTGTGCGCGGATGACCCGTGCGTTTCGCGTTT
G P S G R G L F V G V R G *
46850 46870 46890
TCCGTTCTTGGCACAGGTGATCCGCTCCACGGGCCCTTTCCCCGCGGTGACCCGGACCCTT
46910 46930 46950
ACAGTGAGTGCGGGTCTTGATCGACAACGCCCGGCGGCAGCAAGCGGAGCCGTTCGACGAC
V R V L I D N A R R Q Q A E P S T T
ORF16 --->
46970 46990 47010
ACCGCAGGGAGAGTCGATGGGTGATCGGACCGGCGACCGGACGATTCCGGAATCCTCGCA
P Q G E S M G D R T G D R T I P E S S Q
47030 47050 47070
GACCGCAACGCGTTTCTCTGCTCGGGCAGCGGCGGAATCCCCACCGCCACGGCGGAAACCCA
T A T R F L L G D G G I P T A T A E T H
47090 47110 47130
CGACTGGCTGACCCGCAACGGCGCCGAGCAGCGGCTCGAGGTGGCGCGCGTTCGCGTTTCAG
D W L T R N G A E Q R L E V A R V P F S
47150 47170 47190
CGCCATGGACCGCTGGTCTGTTCCAGCCCGAGGACGGCAGGCTCGCCACGAGTCCGGGCG
A M D R W S F Q P E D G R L A H E S G R
47210 47230 47250
CTTCTTCTCCATCGAGGGCCTGCACGTGCGGACGAACCTTCGGCTGGCGGGGACTGGAT
F F S I E G L H V R T N F G W R R D W I
47270 47290 47310
CCAGCCCATCATCGTGACGCCGAGATCGGCTTCTCTCGGCCTCATCGTCAAGGAGTTTCA
Q P I I V Q P E I G F L G L I V K E F D
47330 47350 47370
CGGTGTGCTGCACGTGCTGGCGCAGGCCAAGGCCGAGCCGGGCAACATCAACGCCGTCCA
G V L H V L A Q A K A E P G N I N A V Q
47390 47410 47430
GCTCTCCCCGACCCTGCAGGCGACCCGCGAGCAACTACACCGGCGTCCACCGCGGCTCGAA
L S P T L Q A T R S N Y T G V H R G S K
47450 47470 47490
GGTCCGGTTTCATCGAGTACTTCAACGGCACGCGCCCGAGCCGGATCCTCGTTCGACGTGCT
V R F I E Y F N G T R P S R I L V D V L
47510 47530 47550
CCAGTCCGAGCAGGGCGCGTGGTTCTTGCAGCAAGCGCAACCGGAACATGGTCTCGAGGT
Q S E Q G A W F L R K R N R N M V V E V
47570 47590 47610
GTTTCGACGACCTGCCCCGAGCACCCGAACCTTCCGGTGGCTGACCGTCCGCGCAGCTGCGGGC
F D D L P E H P N F R W L T V A Q L R A
47630 47650 47670
GATGCTGCACCACGACAACGTGGTGAACATGGACCTGCGCACCGTGTGCGCTGCGCTGCGTCCC
M L H H D N V V N M D L R T V L A C V P
47690 47710 47730
GACCGCCGTGGAGCGGGACCGGGCCGACGACGTGCTCGCGCGCCTGCCCCAGGGGCTCGTT
T A V E R D R A D D V L A R L P E G S F

FIGURE 3

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47750 47770 47790
 CCAGGCCCGGCTGCTGCACTCGTTTCATCGGCGCGGGCACCCCGGCCAACACATGAACAG
 Q A R L L H S F I G A G T P A N N M N S
 47810 47830 47850
 CCTGCTGAGCTGGATCTCCGACGTGCGCGCCAGGCGCGAGTTCTGTCAGCGCGGCCGCC
 L L S W I S D V R A R R E F V Q R G R P
 47870 47890 47910
 GCTGCCCCGACATCGAGCGCAGCGGGTGGATCCGCCGCGACGACGGCATCGAGCACGAGGA
 L P D I E R S G W I R R D D G I E H E E
 47930 47950 47970
 GAAGAAGTACTTCGACGTCTTCGGCGTTCACGGTGGCGACCCAGCGACCCGCGAGGTCAACTC
 K K Y F D V F G V T V A T S D R E V N S
 47990 48010 48030
 GTGGATGCAGCCGCTGCTCTCGCCCCGCCAACACGGCCTGCTCGCCCTGCTGGTCAAGGA
 W M Q P L L S P A N N G L L A L L V K D
 48050 48070 48090
 CATCGGCGGCACGTTGCACGCGCTCGTGCAGCTGCGCACCCGAGGCGGGCGGGATGGACGT
 I G G T L H A L V Q L R T E A G G M D V
 48110 48130 48150
 CGCCGAGCTGGCGCCTACGCTGCACTGCCAGCCCGACAACACTACGCCGACGCGCCCGAGGA
 A E L A P T V H C Q P D N Y A D A P E E
 48170 48190 48210
 GTTCCGACCGGCCTATGTGGACTACGTGTTGAACGTGCGCGCTCGCAGGTCCGCTACGA
 F R P A Y V D Y V L N V P R S Q V R Y D
 48230 48250 48270
 CGCATGGCACTCCGAGGAGGGCGGCCGTTCTACCGCAACGAGAACCAGGTACATGCTGAT
 A W H S E E G G R F Y R N E N R Y M L I
 48290 48310 48330
 CGAGGTGCCCCGCCGACTTCGACGCCAGTGGCGCTCCCGACCCAGCGGTGGATGACCTTCGA
 E V P A D F D A S A A P D H R W M T F D
 48350 48370 48390
 CCAGATCACCTACCTGCTCGGGCACAGCCACTACGTCAACATCCAGCTGCGCAGCATCAT
 Q I T Y L L G H S H Y V N I Q L R S I I
 48410 48430 48450
 CGCGTGCGCCTCGGCCGTCTACACCAGGACCGCCGGATGAACGCGCGCTGACCGACCTG
 A C A S A V Y T R T A G *
 M K R A L T D L
 ORF17 --->
 48470 48490 48510
 GCGATCTTCGGCGGCCCGAGGCATTCTGCACACCCCTCTACGTGGGCAGGCCGACCGTC
 A I F G G P E A F L H T L Y V G R P T V
 48530 48550 48570
 GGGGACCGGGAGCGGTTCTTCGCCCGCCTGGAGTGGGCGCTGAACAACAACACTGGCTGACC
 G D R E R F F A R L E W A L N N N W L T
 48590 48610 48630
 AACGGCGGACCACTGGTGCAGGAGTTTCGAGGGCCGGGTGCGCCGACCTGGCGGGTGTCCGC
 N G G P L V R E F E G R V A D L A G V R
 48650 48670 48690
 CACTGCGTGGCCACCTGCAACGCGACGGTTCGCGCTGCAACTGGTGTGCGCGCGAGCGAC
 H C V A T C N A T V A L Q L V L R A S D
 48710 48730 48750
 GTGTCCGGCGAGGTGCTCATGCCTTCGATGACGTTCGCGGCCACCGCGCACGCGGCGAGC
 V S G E V V M P S M T F A A T A H A A S

FIGURE 3

006220 50769460

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48770 48790 48810
TGGCTGGGGCTGGAACCGGTGTTCTGCGACGTGGACCCCGAGACCGGCCTGCTCGACCCC
W L G L E P V F C D V D P E T G L L D P
48830 48850 48870
GAGCACGTGCGCTGCTGGTGACACCGCGGACGGGCGCGATCATCGGCGTGCACCTGTGG
E H V A S L V T P R T G A I I G V H L W
48890 48910 48930
GGCAGGCCCCGCTCCGGTCGAGGCGCTGGAGAAGATCGCCGCCGAGCACCAGGTCAAACCTC
G R P A P V E A L E K I A A E H Q V K L
48950 48970 48990
TTCTTCGACGCCGCGCACGCGCTGGGCTGCACCGCCGGCGGGCGGCGGCTCGGCGCCTTC
F F D A A H A L G C T A G G R P V G A F
49010 49030 49050
GGCAACGCCGAGGTGTTTCAGCTTCCACGCCACGAAGGCGGTACCTCGTTCGAGGGCGGC
G N A E V F S F H A T K A V T S F E G G
49070 49090 49110
GCCATCGTCACCGACGACGGGCTGCTGGCCGACCGCATCCGCGCCATGCACAACCTTCGGG
A I V T D D G L L A D R I R A M H N F G
49130 49150 49170
ATCGCACCGGACAAAGCTGGTGACCGATGTGCGGCACCAACGGCAAGATGAGCGAGTGCGCC
I A P D K L V T D V G T N G K M S E C A
49190 49210 49230
GCGGCGATGGGCGCTCACCTCGCTCGACGCGCTTCGCCGAGACCAGGGTGCACAACCGCCTC
A A M G L T S L D A F A E T R V H N R L
49250 49270 49290
AACCACGCGCTCTACTCCGACGAGCTCCGCGACGTGCGCGGCATATCCGTGCACGCGTTC
N H A L Y S D E L R D V R G I S V H A F
49310 49330 49350
GATCCTGGCGAGCAGAACAACCTACCACTACGTGATCATCTCGGTGGACTCCGCGGCCACC
D P G E Q N N Y Q Y V I I S V D S A A T
49370 49390 49410
GGCATCGACCGCGACCAAGTTGCGAGGCGATCCTGCGAGCGGAGAAGGTTGTGGCACAACCC
G I D R D Q L Q A I L R A E K V V A Q P
49430 49450 49470
TACTTCTCCCCCGGGTGCCACCAGATGCAGCCGTACCGGACCGAGCCGCCGCTGCGGCTG
Y F S P G C H Q M Q P Y R T E P P L R L
49490 49510 49530
GAGAACACCGAACAGCTCTCCGACCGGGTGCTCGCGCTGCCACCGGCCCCCGGGTGCTCC
E N T E Q L S D R V L A L P T G P A V S
49550 49570 49590
AGCGAGGACATCCGGCGGGTGTGCGACATCATCCGGCTCGCCGCCACCGAGCGGCGAGCTG
S E D I R R V C D I I R L A A T S G E L
49610 49630 49650
ATCAACGCGCAATGGGACCAGAGGACGCGCAACGGTTCTGTGACGACCTGCGCCACAAGTG
I N A Q W D Q R T R N G S *
49670 49690 49710
CCAGGAGGTTCTGCTCCCCGATGAACACAACCTCGTACGGCAACCGCCCCAGGAAGCGGGGT
M N T T R T A T A Q E A G V
ORF18 --->
49730 49750 49770
CGCCGACGCGGCGCGCCCGGACGTGACCGGGCGGGCGGTCTGTGCGGCGGCTGAGCTCGGA
A D A A R P D V D R R A V V R A L S S E

FIGURE 3

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49790 49810 49830
GGTCTCCCGCGTCACCGGCGCGCGGTGACGGTGACGCCGACGTGCAGGCCCGCGGCTCGC
V S R V T G A G D G D A D V Q A A R L A
49850 49870 49890
CGACCTCGCCGCGCACTACGGGGCGCACCCGTTACGCCGCTGGAGCAGACGCGTGCGCG
D L A A H Y G A H P F T P L E Q T R A R
49910 49930 49950
GCTCGGCCTGGACCGCGCGGAGTTGCCCCACCTGCTCGACCTGTTCCGGCCGCATCCCGGA
L G L D R A E F A H L L D L F G R I P D
49970 49990 50010
CCTGGGACACCGCGGTGGAGCACGGTCCGGCGGGCAAGTACTGGTCCACACGATCAAGCC
L G T A V E H G P A G K Y W S N T I K P
50030 50050 50070
GCTGGACGCCGCGCAGGCGCACTGGACGCGGCGGTCTACCGCAAGCCTGCCTTCCCTACAG
L D A A G A L D A A V Y R K P A F P Y S
50090 50110 50130
CGTCGGCCTGTACCCCGGGCGGACGTGCATGTTCCGCTGCCACTTCTGCGTGCGGGTGAC
V G L Y P G P T C M F R C H F C V R V T
50150 50170 50190
CGGTGCCCCGCTACGAGGCCGCATCGGTCCCGGCGGGCAACGAGACGCTGGCCGCGATCAT
G A R Y E A A S V P A G N E T L A A I I
50210 50230 50250
CGACGAGGTGCCCCACGGACAACCCGAAGGCGATGTACATGTGCGGGCGGGCTCGAGCCGCT
D E V P T D N P K A M Y M S G G L E P L
50270 50290 50310
GACCAACCCCGGTCTCGGCGAGCTGGTGTCGCACGCCCGCGGGCGCGGTTTCGACCTCAC
T N P G L G E L V S H A A G R G F D L T
50330 50350 50370
CGTCTACACCAACGCCTTCGCCCTCACCGAGCAGACGCTGAACCGCCAGCCCGGCCTGTG
V Y T N A F A L T E Q T L N R Q P G L W
50390 50410 50430
GGAGCTGGGCGCGATCCGCAACGTCCCTCTACGGGCTGAACAACGACGAGTACGAGACGAC
E L G A I R T S L Y G L N N D E Y E T T
50450 50470 50490
CACCGGCAAGCGCGGCGCTTTTGAACGCGTCAAGAAGAACCTGCAGGGCTTCTGCGGAT
T G K R G A F E R V K N L Q G F L R M
50510 50530 50550
GCGCGCCGAGCGGGACGCGCCGATCCGGCTCGGCTTCAACCACATCATCCTGCCGGGACG
R A E R D A P I R L G F N H I I L P G R
50570 50590 50610
GGCCGACCGGCTCACCGACCTCGTCGACTTTCATCGCCGAGCTCAACGAGTCCAGCCCGCA
A D R L T D L V D F I A E L N E S S P Q
50630 50650 50670
ACGGCCGCTGGACTTCGTGACGGTGCGCGAGGACTACAGCGGCCGCGACGACGGCCGGCT
R P L D F V T V R E D Y S G R D D G R L
50690 50710 50730
GTCGGACTCCGAGCGCAACGAGCTGCGCGAGGGCCTGGTGCGGTTCTGCGACTACGCCG
S D S E R N E L R E G L V R F V D Y A A
50750 50770 50790
CGAGCGGACCCCGGGCATGCACATCGACCTGGGCTACGCCCTGGAGAGCCTGCGGGCGGGG
E R T P G M H I D L G Y A L E S L R R G

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FIGURE 3

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50810 50830 50850
 TGTGGACGCCGAGCTGCTGCGCATCCGGCCGAGACGATGCGTCCCACCGCGCACCCCCA
 V D A E L L R I R P E T M R P T A H P Q
 50870 50890 50910
 GGTGCGCGGTGCAGATCGACCTGCTCGGCGACGTCTACCTCTACCGCGAGCGGGCTTCCC
 V A V Q I D L L G D V Y L Y R E A G F P
 50930 50950 50970
 GGAGCTGGAGGGCGCCACCCGCTACATCGCGGGCCGGGTCACCCCGTCGACCAGCCTGCG
 E L E G A T R Y I A G R V T P S T S L R
 50990 51010 51030
 CGAGGTGGTGGAGAAGTTCGTGCTGGAGAAGCGGGCGTGCAGCCCCGCCCGGCGACGA
 E V V E N F V L E N E G V Q P R P G D E
 51050 51070 51090
 GTACTTCCTCGACGGCTTCGACCAGTCGGTGACCGCACGGCTCAACCAGCTCGAACGAGA
 Y F L D G F D Q S V T A R L N Q L E R D
 51110 51130 51150
 CATCGCCGACGGGTGGGAGGACCACCGCGGCTTCCTGCGCGGAAGGTGAACCGGAGTTGC
 I A D G W E D H R G F L R G R *
 51170 51190 51210
 GAGTACGTGAGCTGGCGGTGGCGGGCGGTTTCGAGTTACACCCCGACCCGAAGCAGGACC
 V A G G F E F T P D P K Q D R
 ORF19 --->
 51230 51250 51270
 GGCAGGGCCCTGTTCTGCTGCTCCGCTGCAGGACGAGGCGTTCTGTTGGGCGCGGTGGGCCATC
 R G L F V S P L Q D E A F V G A V G H R
 51290 51310 51330
 GGTTCCTCCGTCGCCCAGATGAACACATCGTCTCCGCCCCGGGCGTCTGCGCGGGCTGC
 F P V A Q M N H I V S A R G V L R G L H
 51350 51370 51390
 ACTTCACCAACCCCGCCGGGGCAGTGCAAGTACGTCTACTGCGCGCGCGCGCGCGCGC
 F T T T P P G Q C K Y V Y C A R G R A L
 51410 51430 51450
 TCGACGTGATCGTTCGACATCCGGGTGCGGCTCGCCGACGTTTCGGGAAGTGGGACGCGGTGG
 D V I V D I R V G S P T F G K W D A V E
 51470 51490 51510
 AGATGGACACCGAGCACTTCCGGGCGGTCTACTTCCCCAGGGGCACCGCGCACGCCTTCC
 M D T E H F R A V Y F P R G T A H A F L
 51530 51550 51570
 TCGCGCTTGAGGACGACACCCTGATGTCGTACCTGGTCAGCACGCCGTACGTGGCCGAGT
 A L E D D T L M S Y L V S T P Y V A E Y
 51590 51610 51630
 ACGAGCAGGCGATCGACCCGTTTCGACCCCGCGCTGGGTCTGCCGTGGCCCCGCGGACCTGG
 E Q A I D P F D P A L G L P W P A D L E
 51650 51670 51690
 AGGTGCTGCTCTCCGACCGCGACACGGTGGCCGTGGACCTGGAGACCGCCAGGCGGCGAG
 V V L S D R D T V A V D L E T A R R R G
 51710 51730 51750
 GGATGCTGCCCCGACTACGCCGACTGCCTCGGCGAGGAGCCCGCCAGCACCGGCAGGTGAC
 M L P D Y A D C L G E E P A S T G R *
 * A S Q R P S S G A L V P L H
 <--- ORF20...

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FIGURE 3

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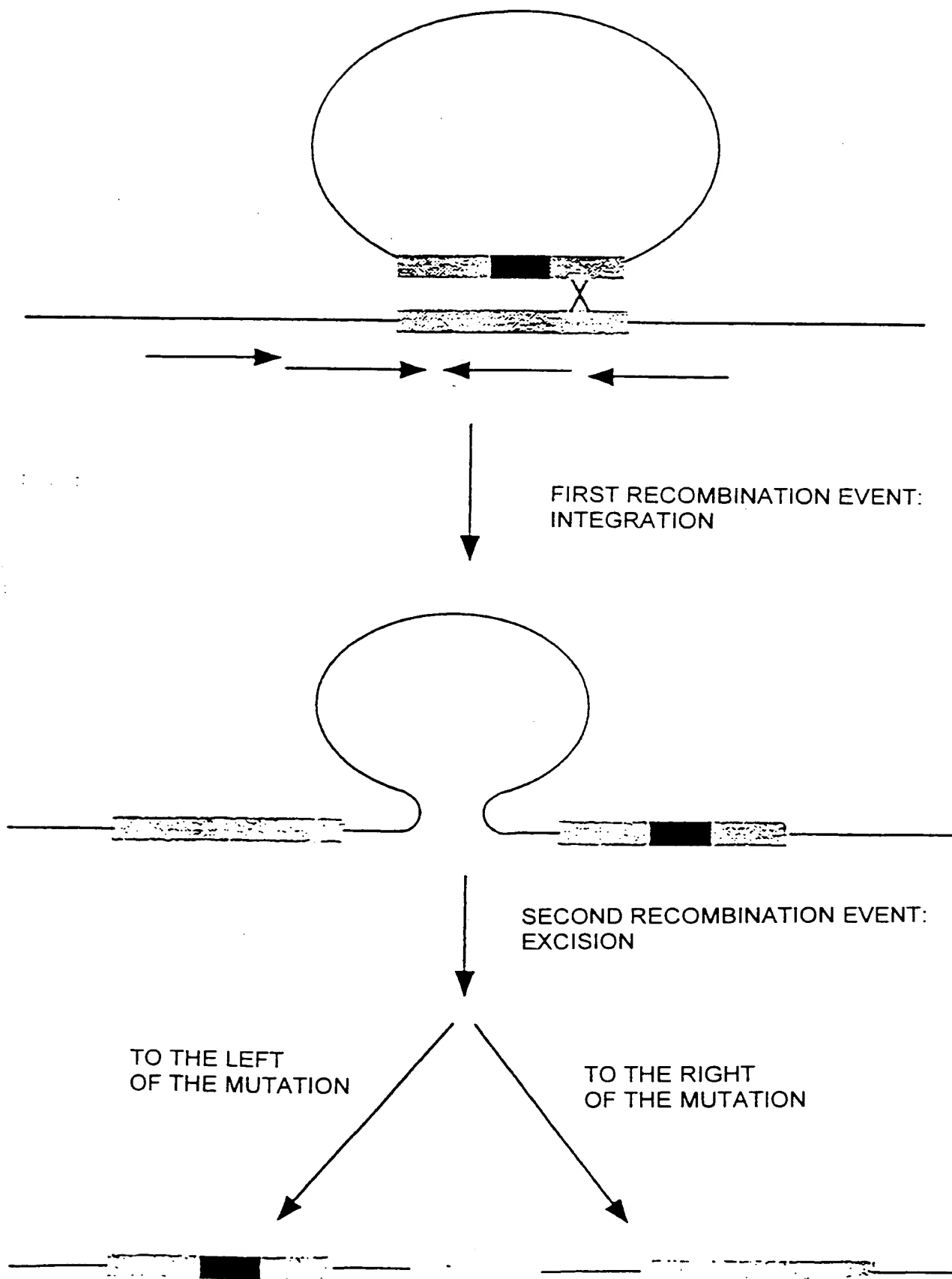


FIGURE 4

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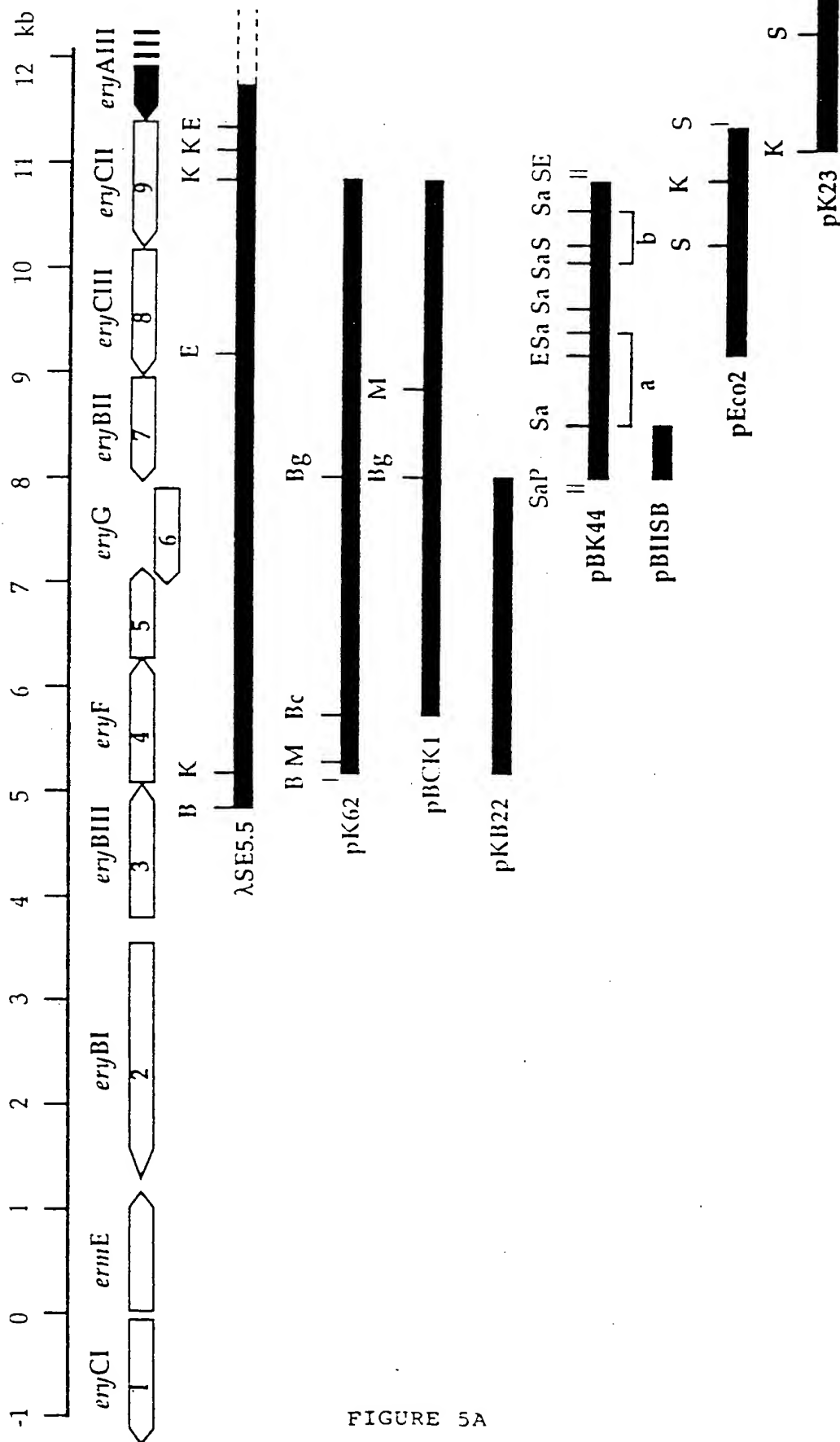


FIGURE 5A

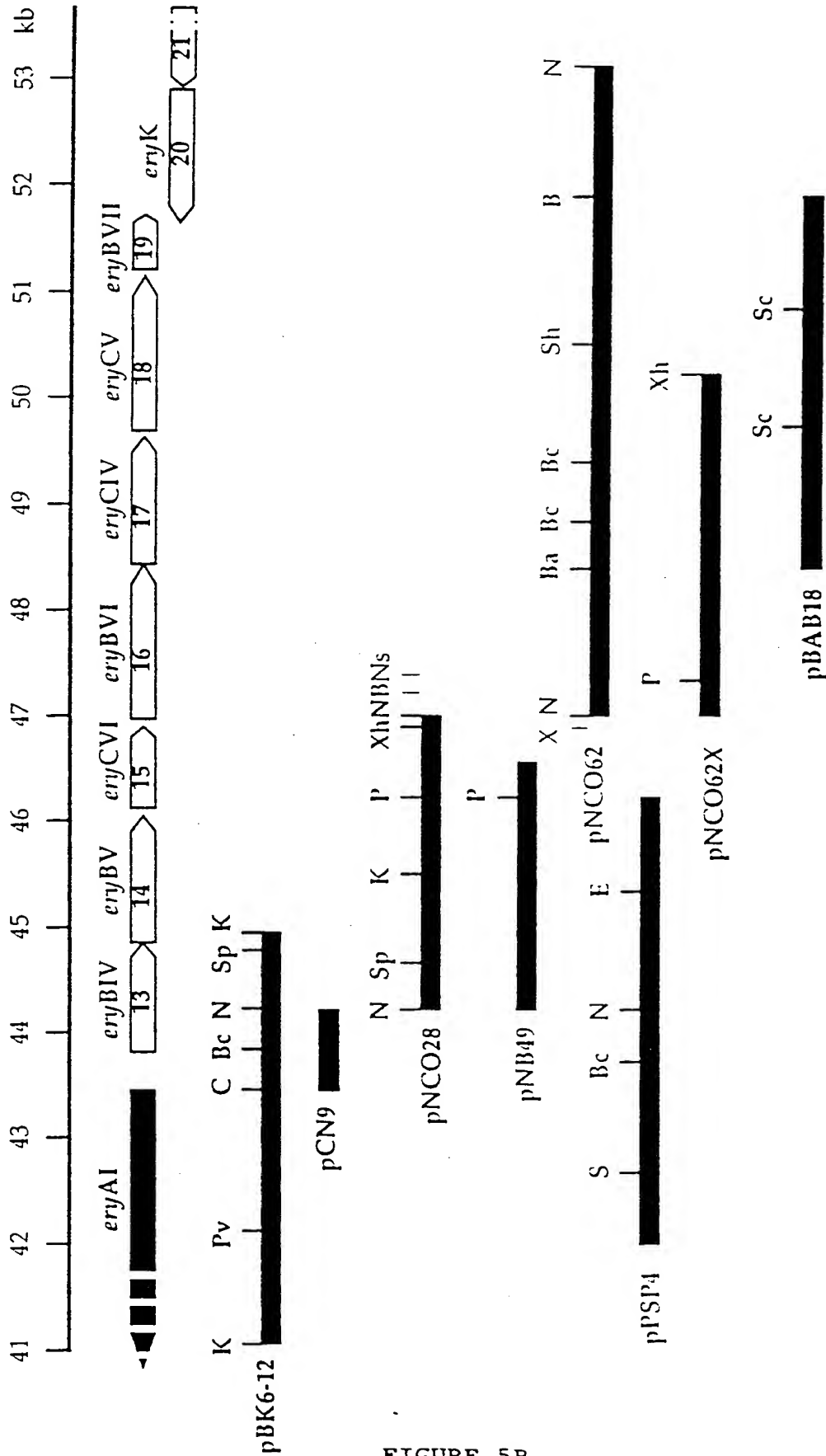


FIGURE 5B

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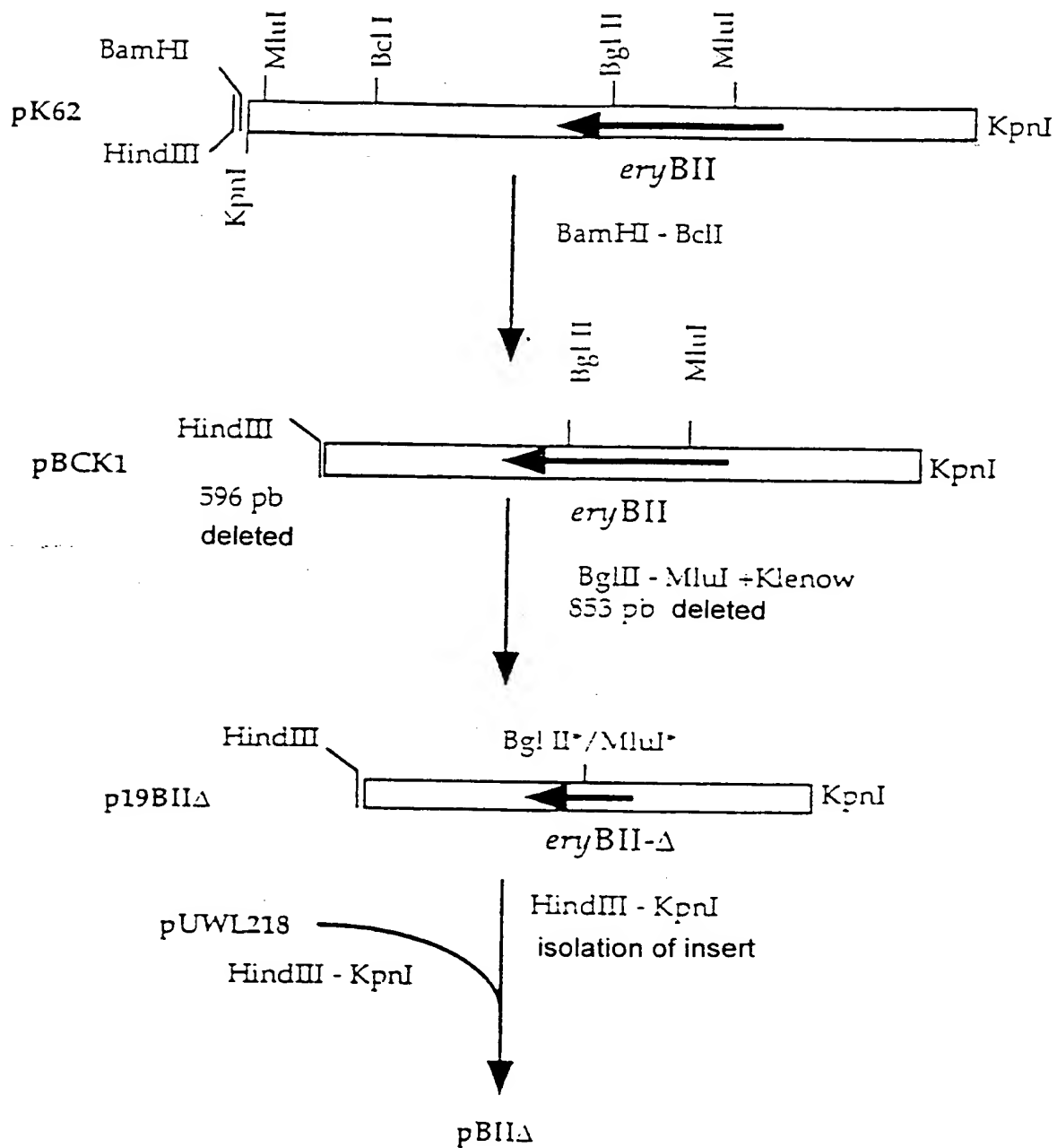


FIGURE 6A

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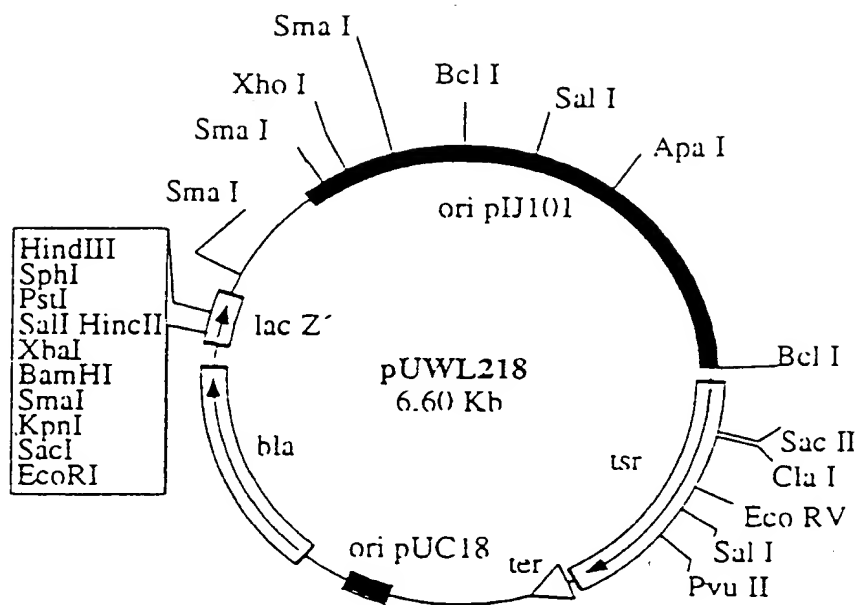


FIGURE 6B

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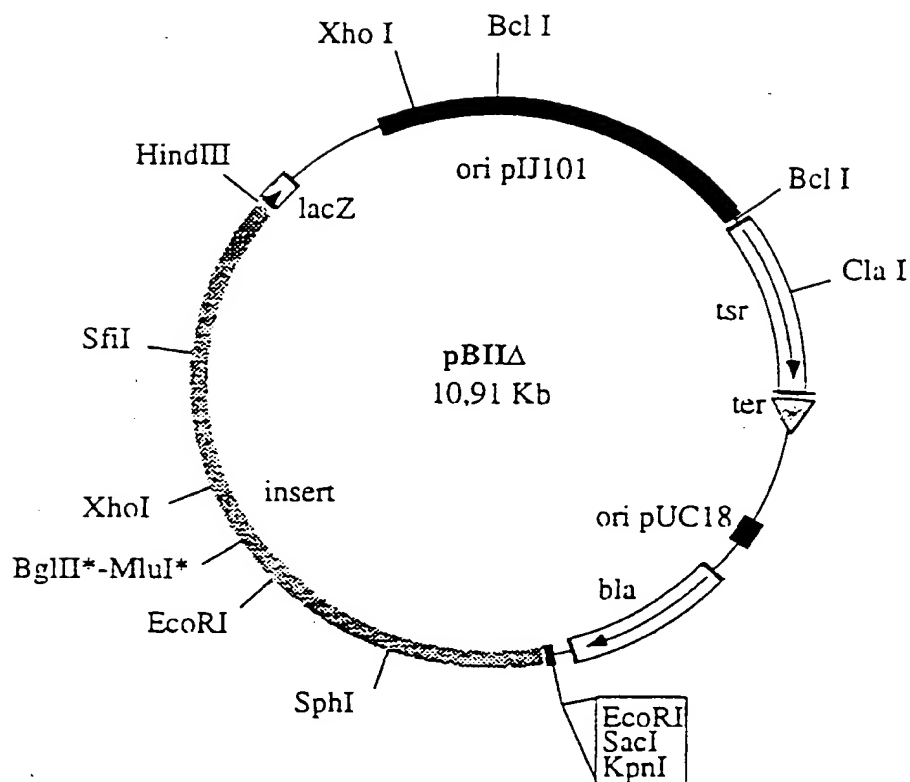


FIGURE 6C

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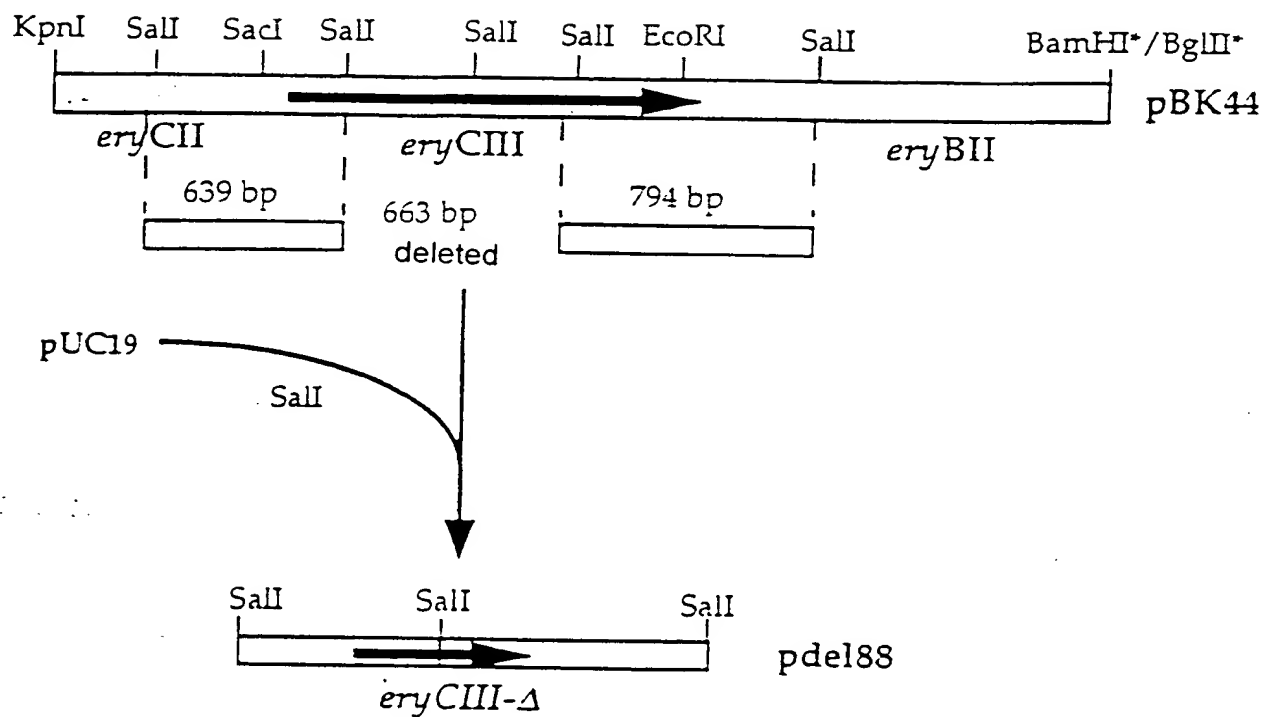


FIGURE 7A

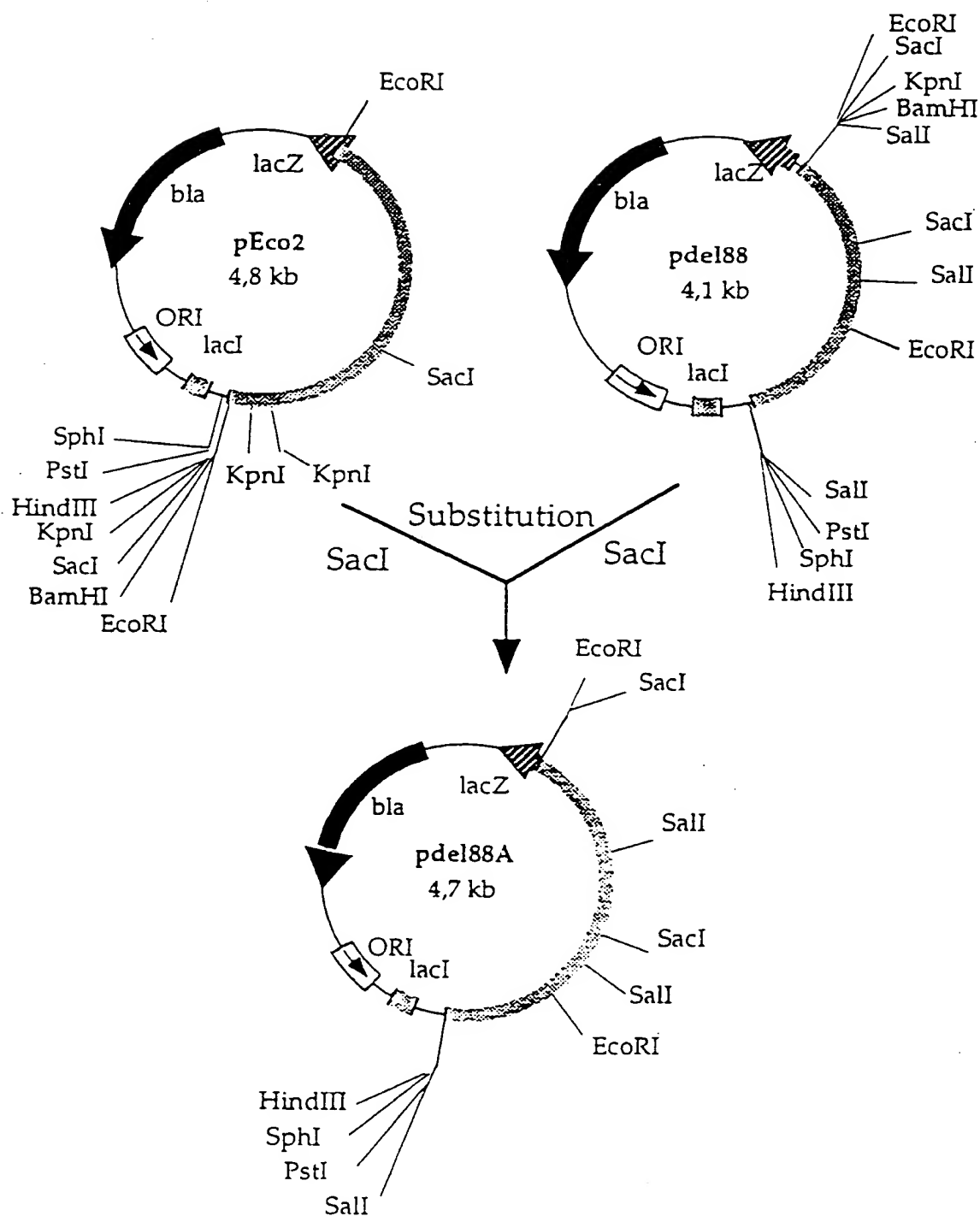


FIGURE 7B

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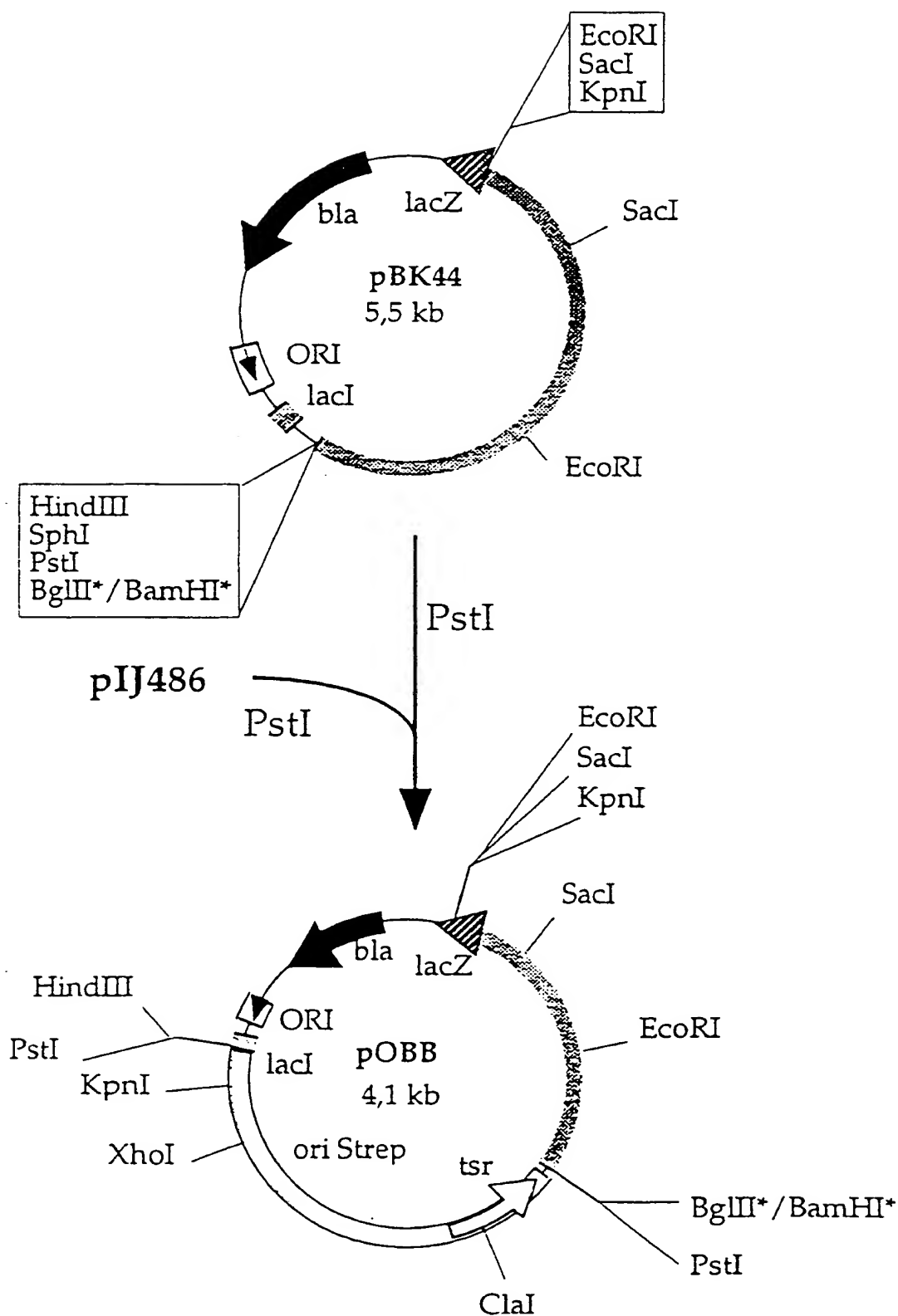


FIGURE 7C

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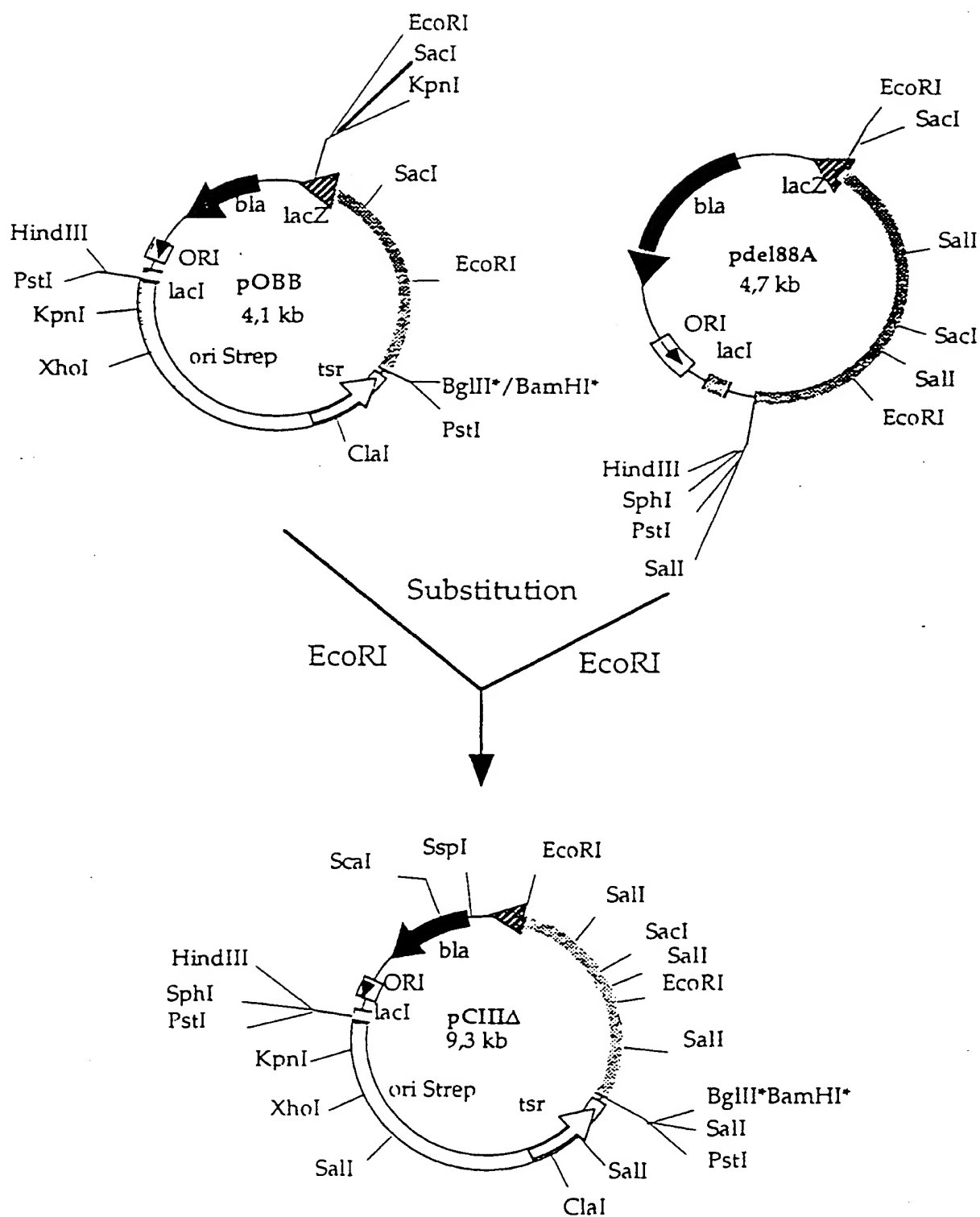


FIGURE 7D

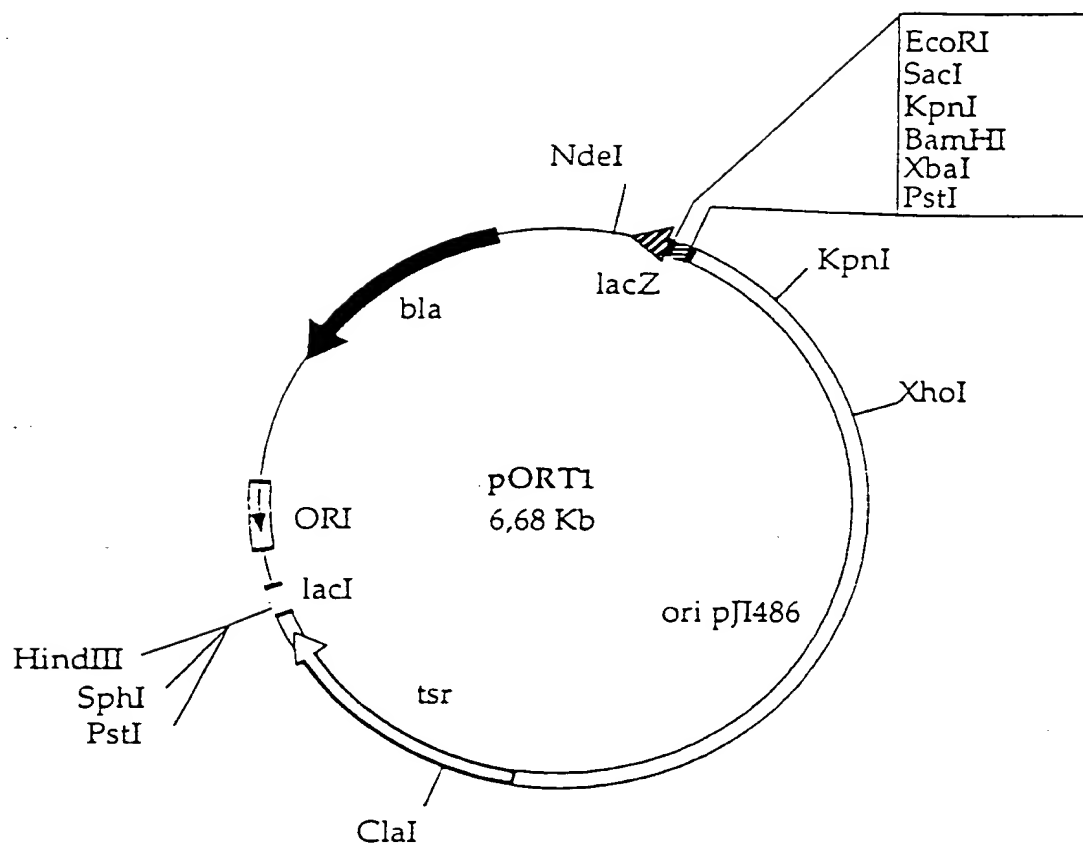


FIGURE 8B

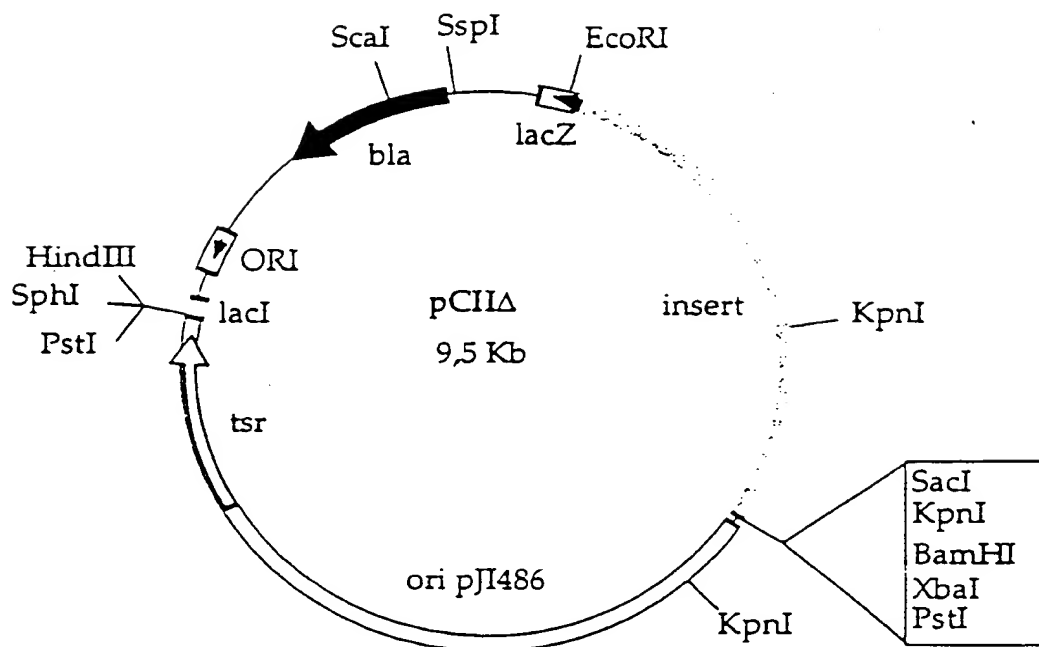


FIGURE 8C

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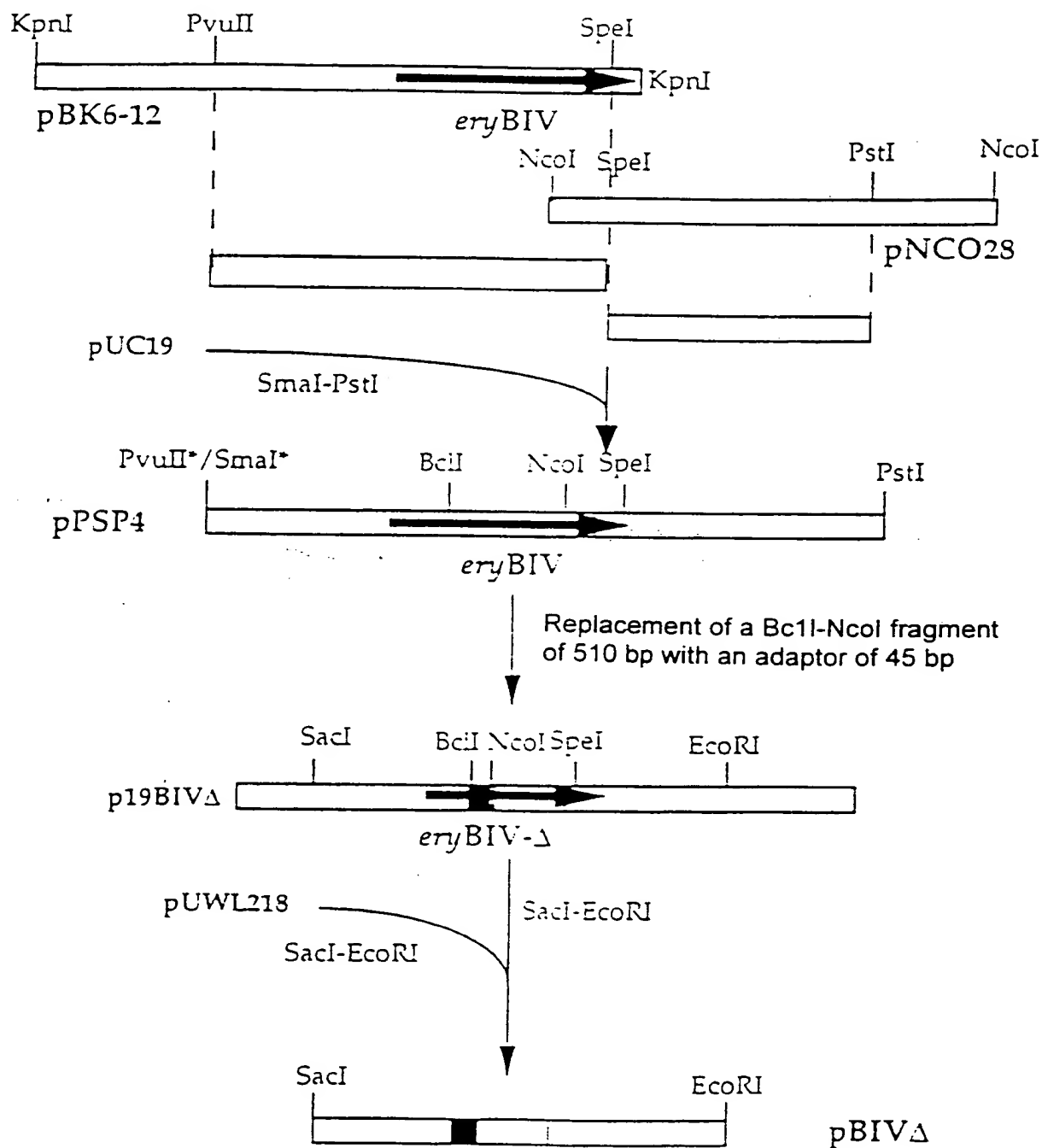


FIGURE 9A

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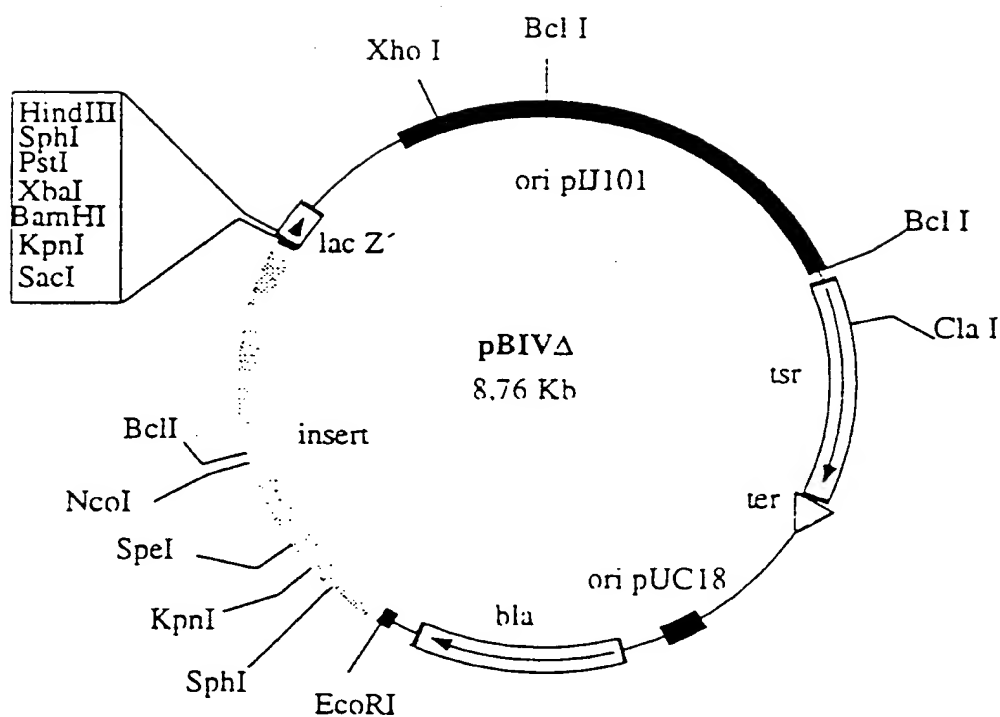


FIGURE 9B

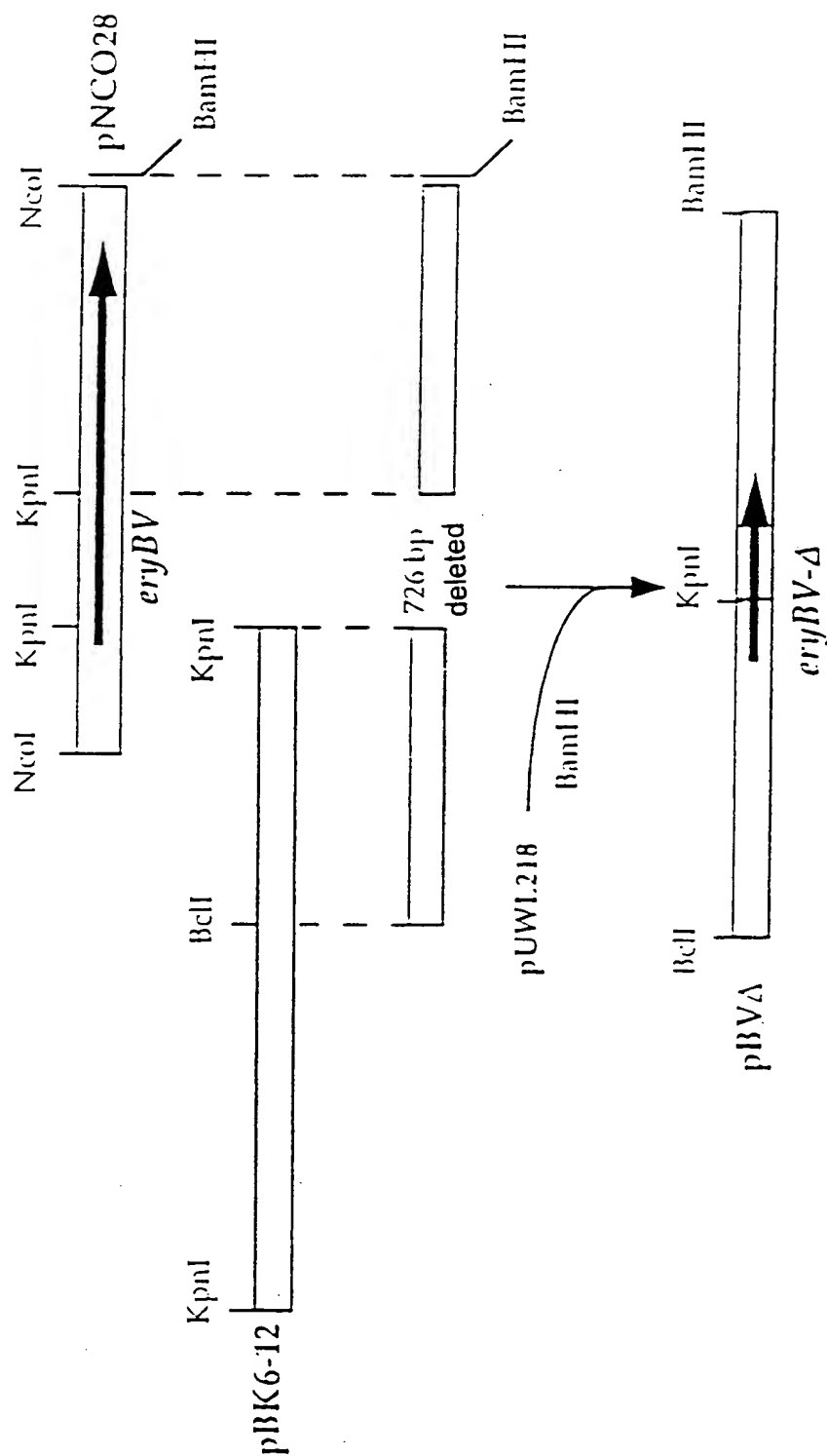


FIGURE 10A

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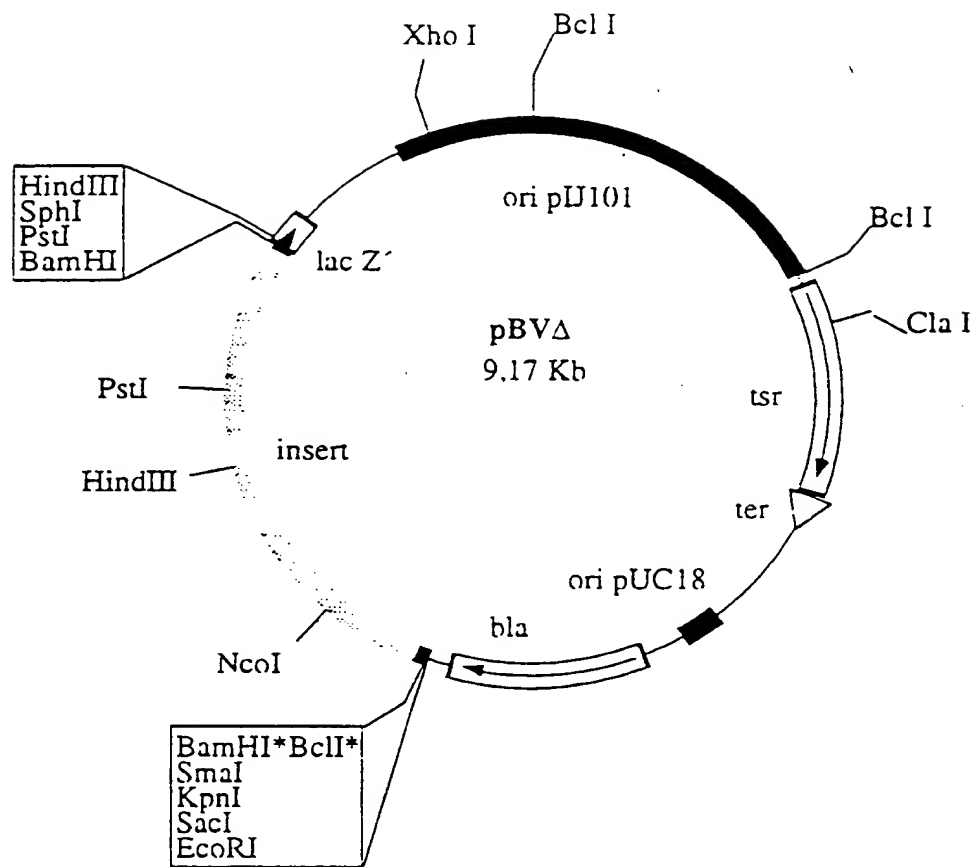


FIGURE 10B

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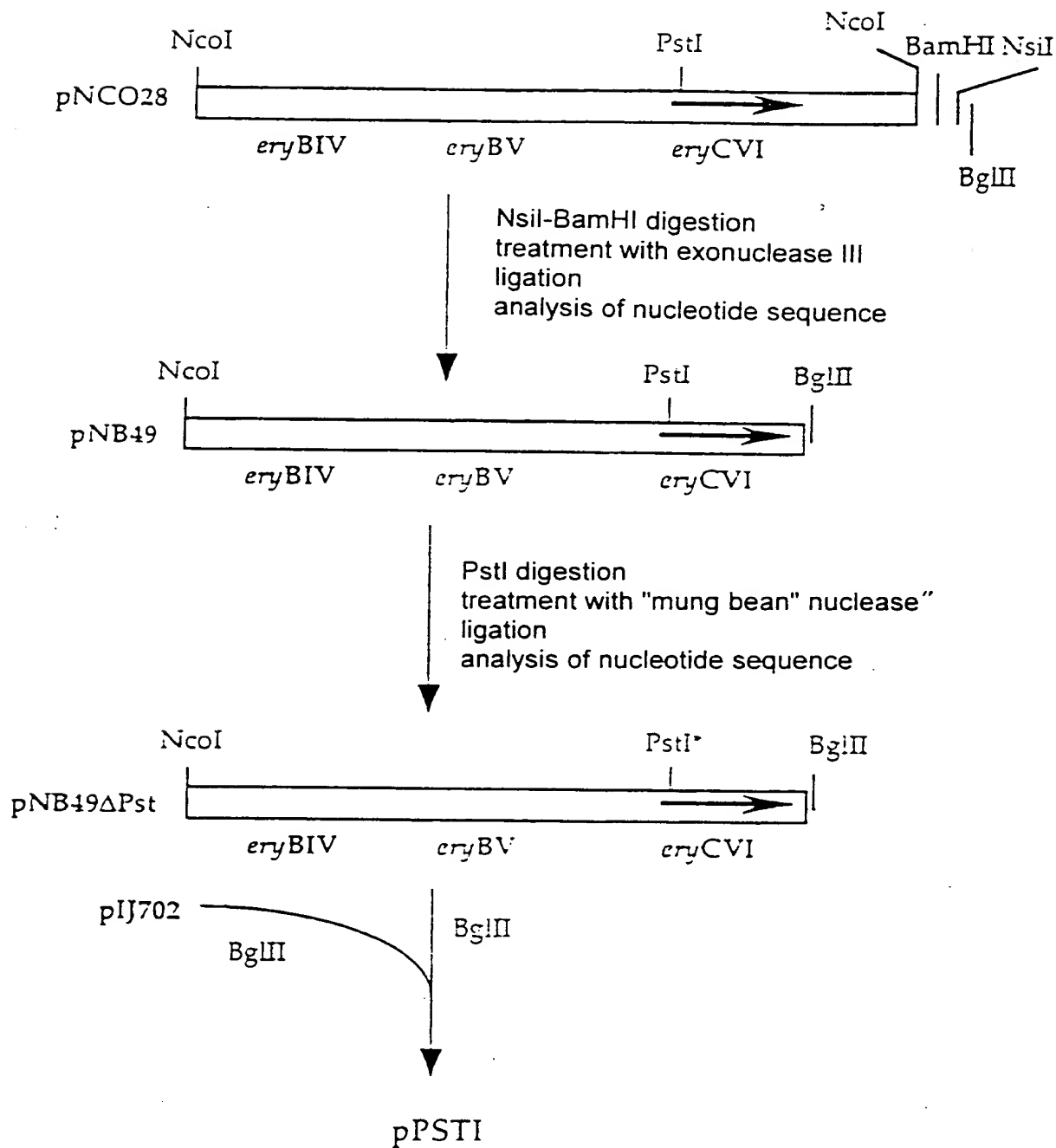


FIGURE 11A

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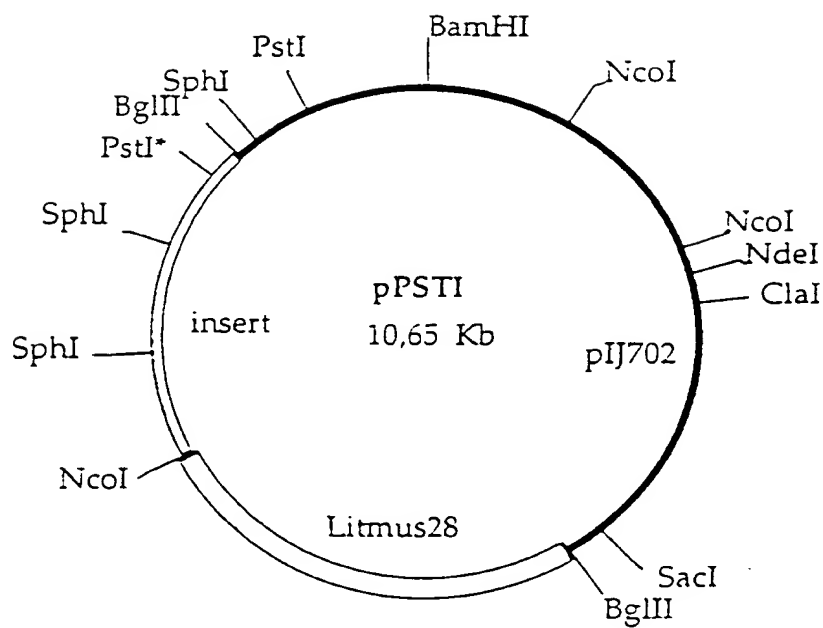


FIGURE 11B

09463705 022200

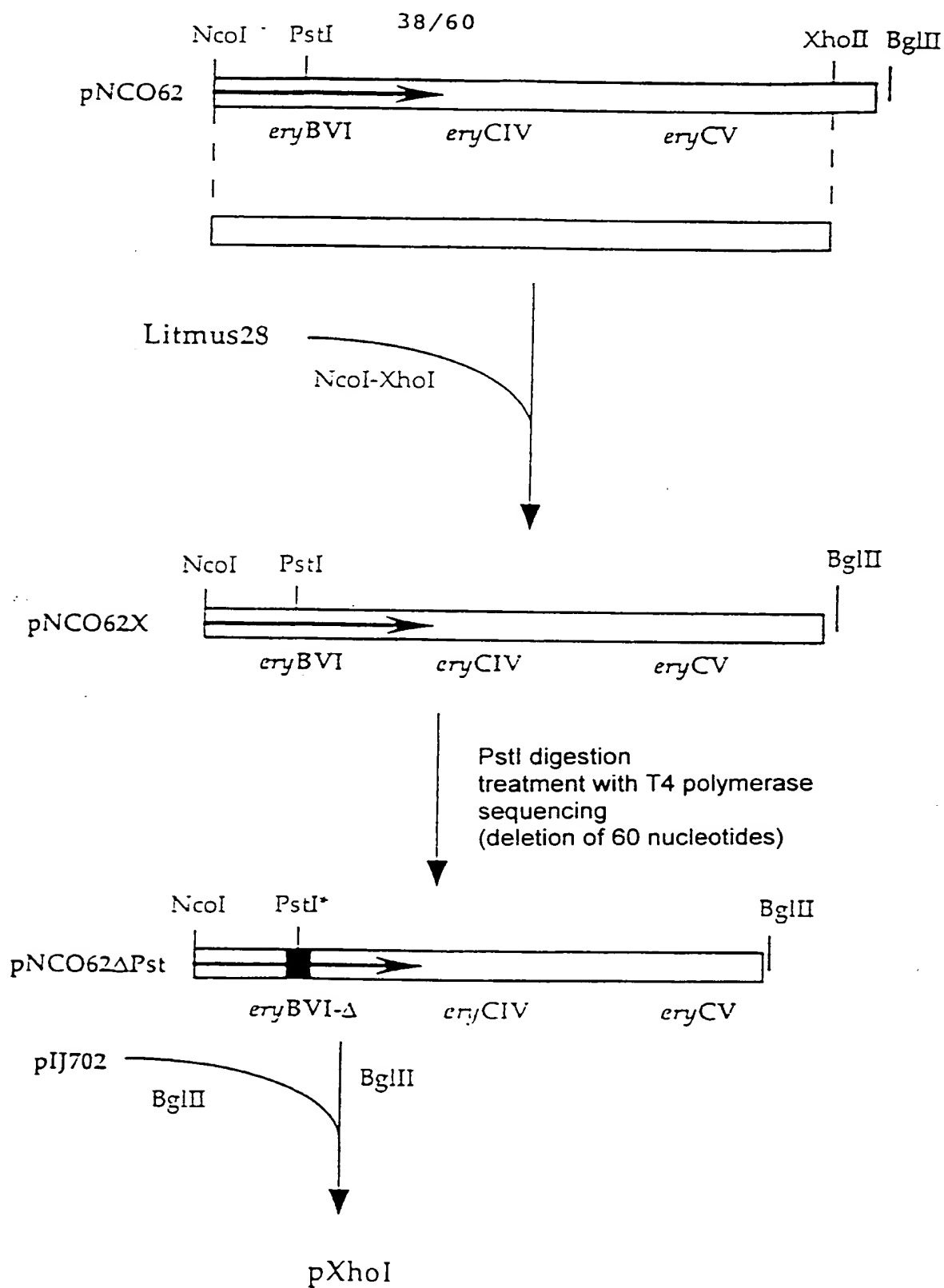


FIGURE 12A

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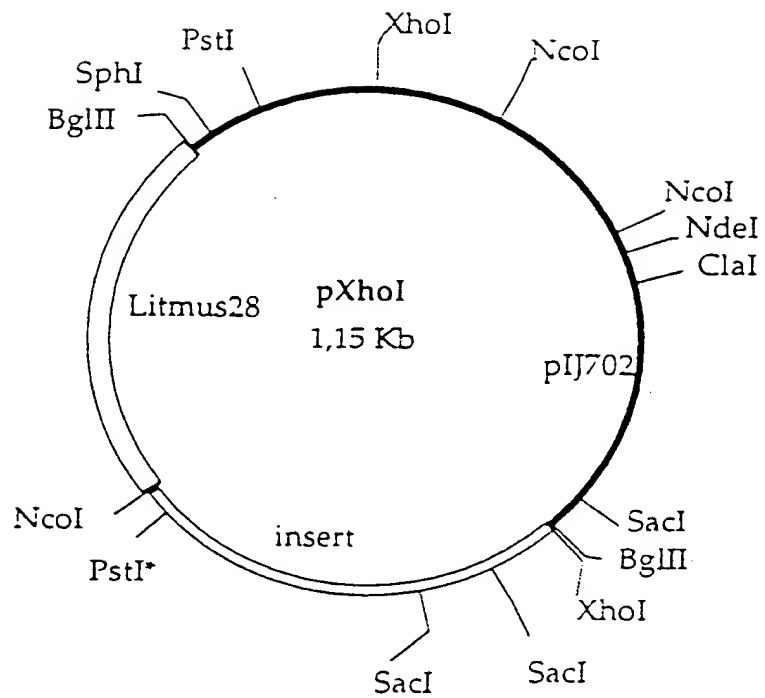


FIGURE 12B

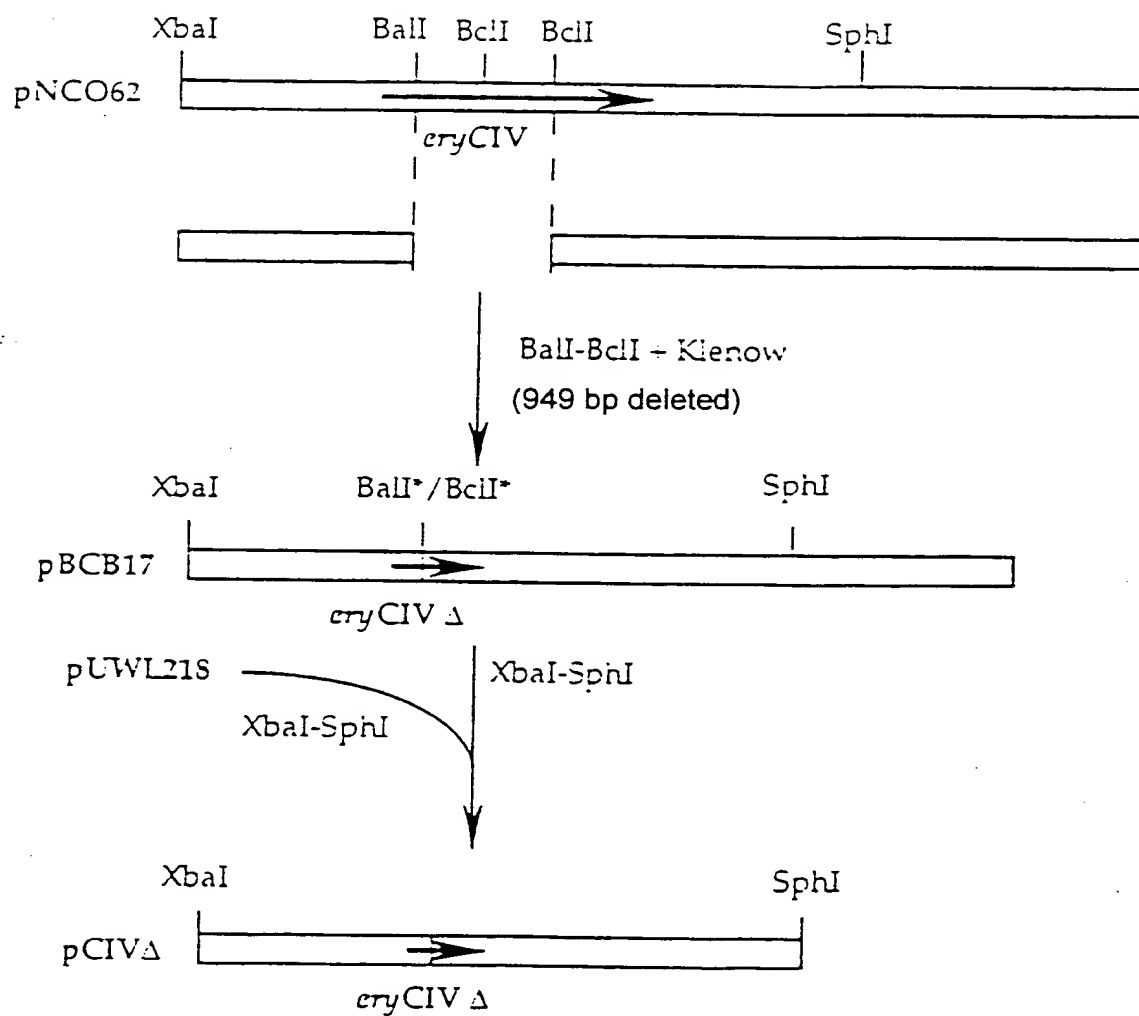


FIGURE 13A

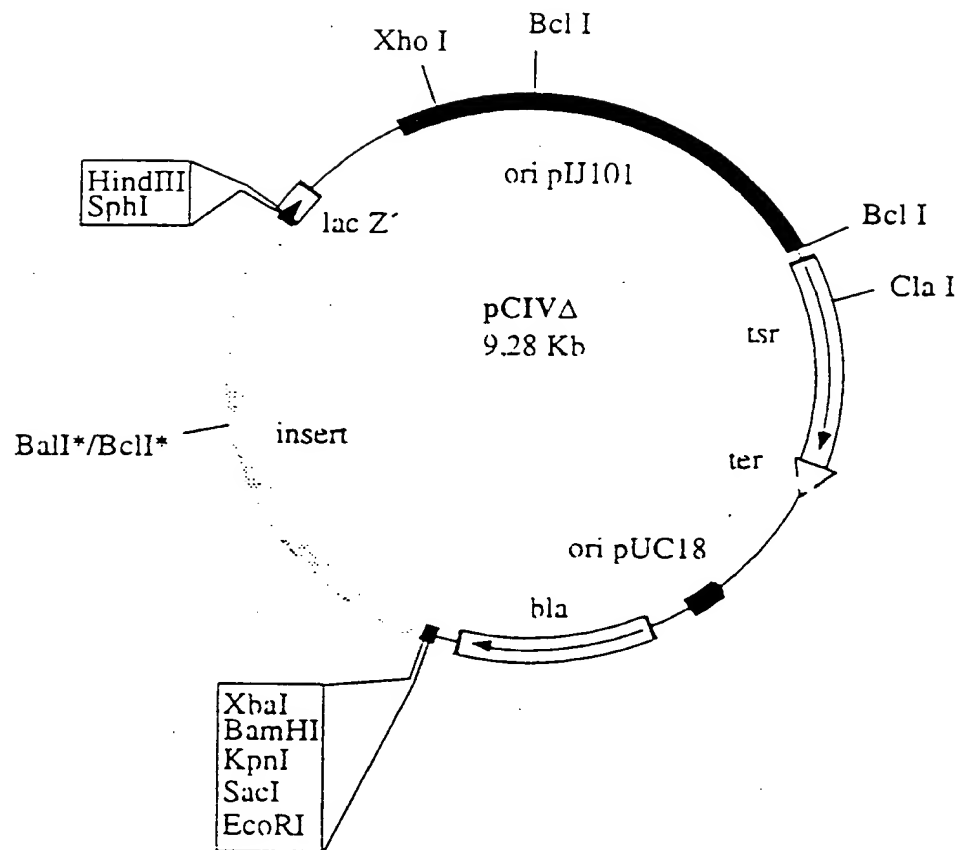


FIGURE 13B

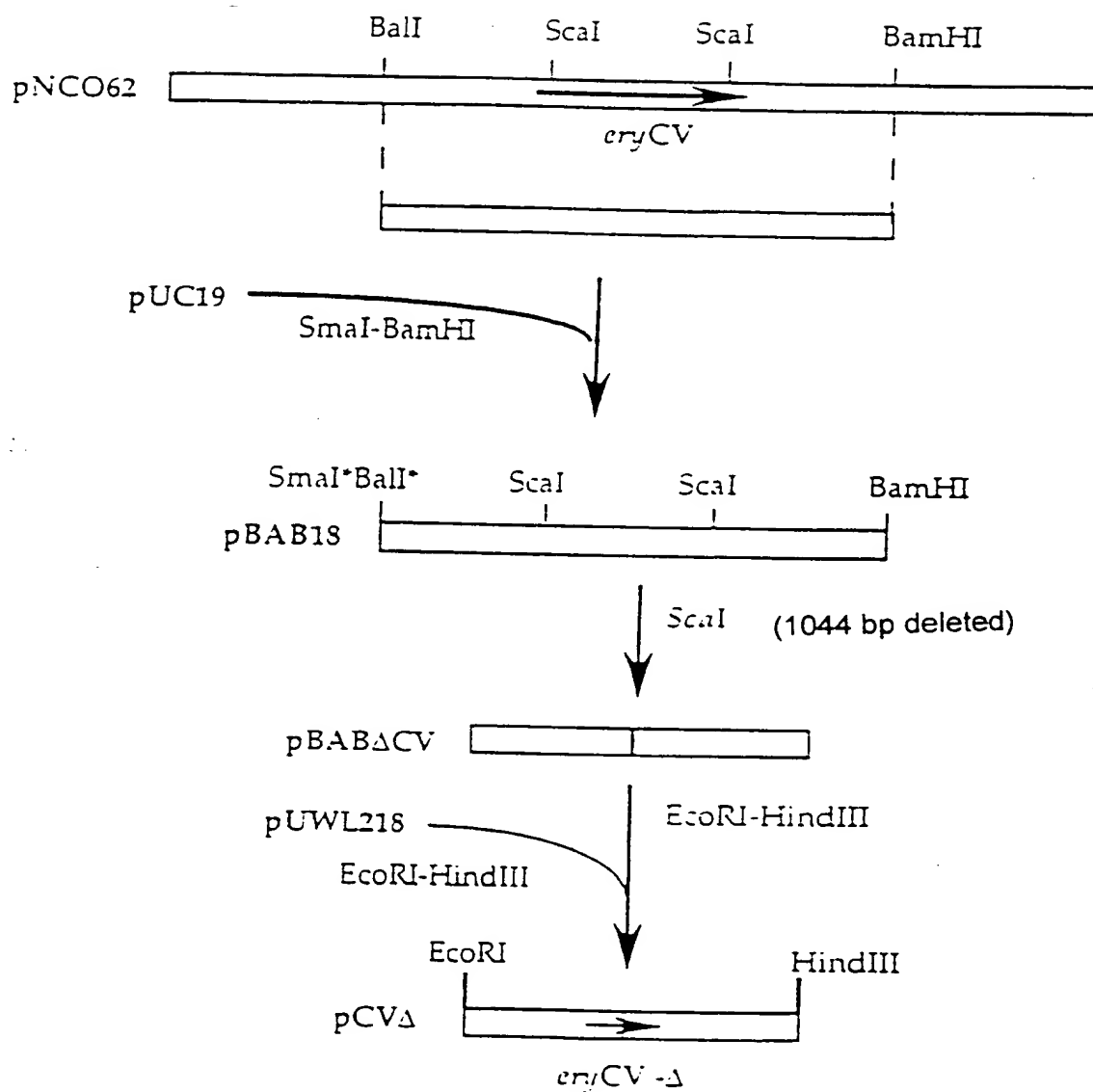


FIGURE 14A

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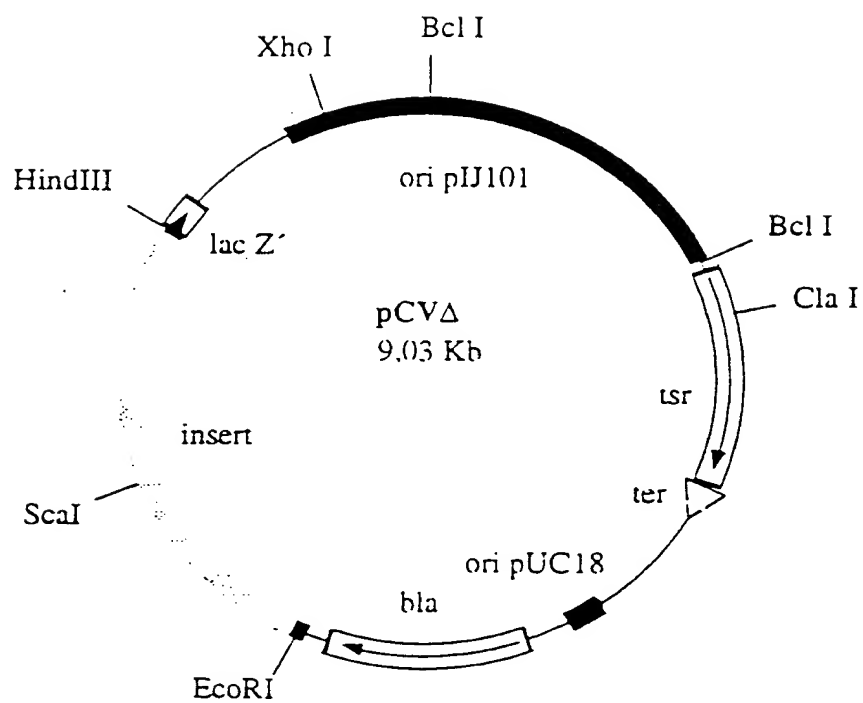


FIGURE 14B

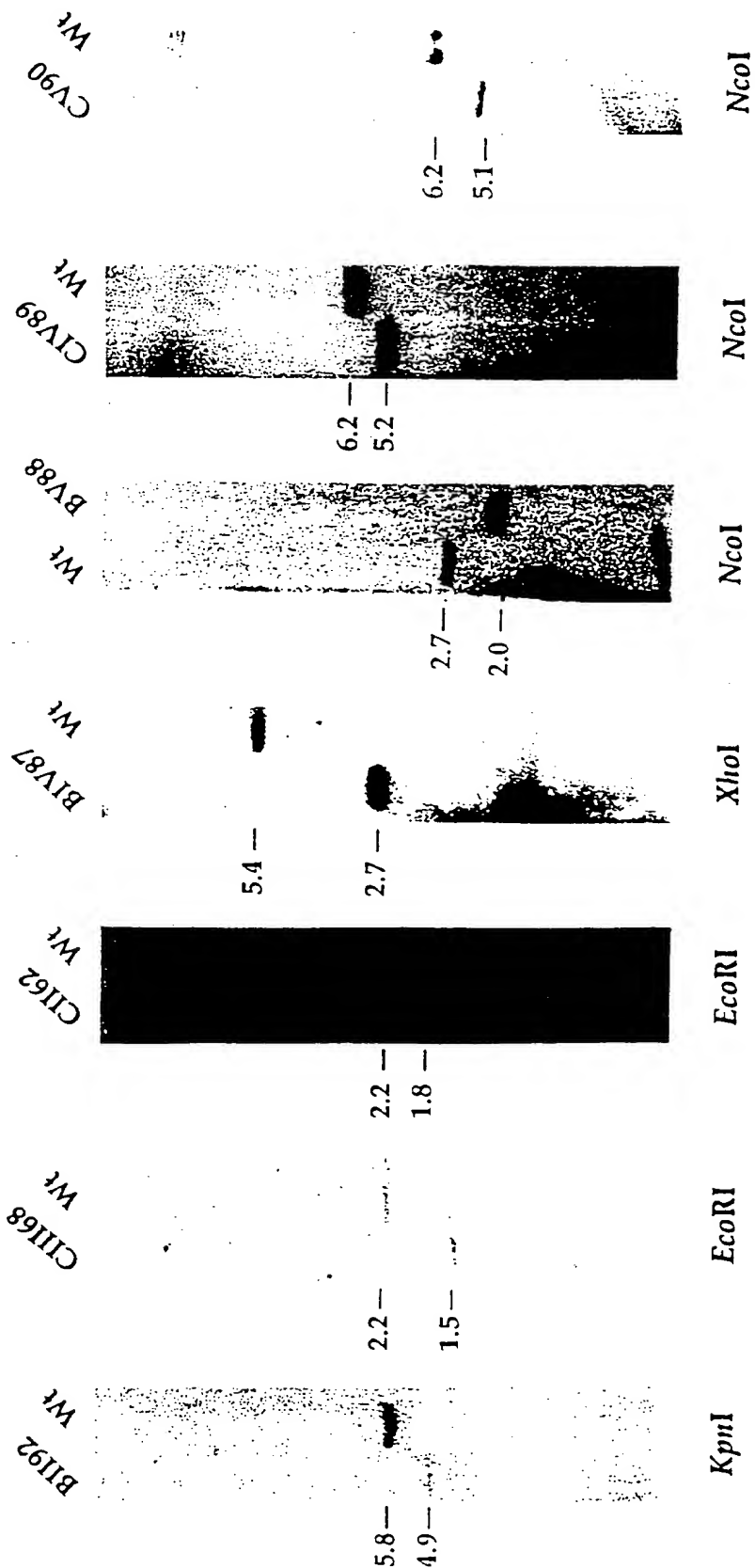
[illegible]

FIGURE 15

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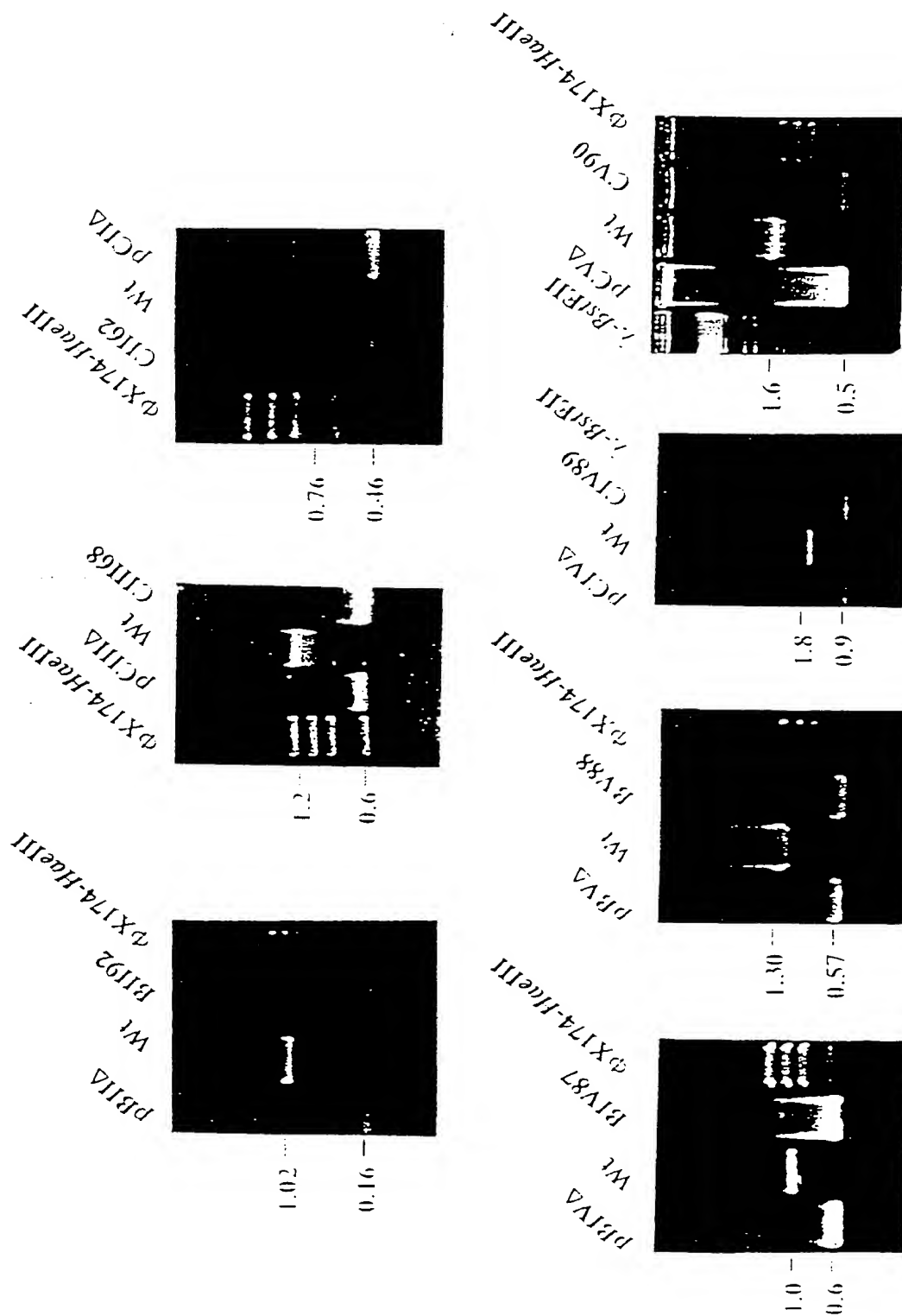


FIGURE 16

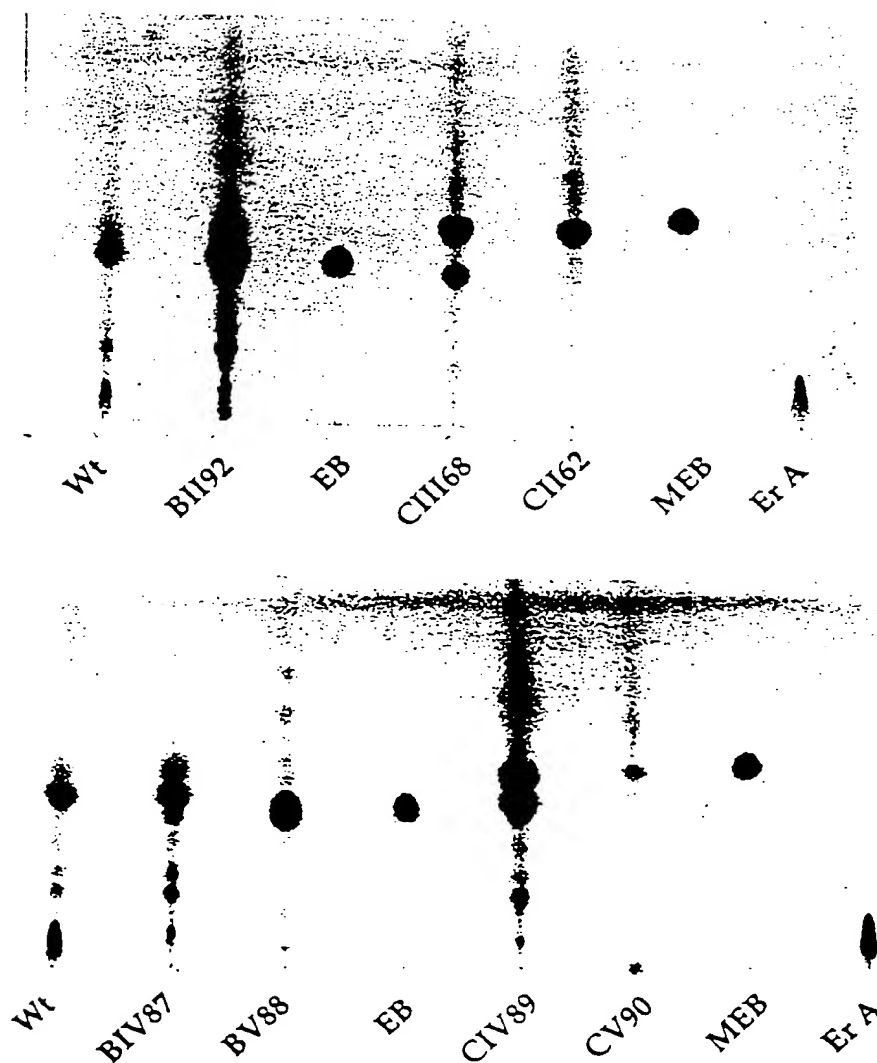


FIGURE 17

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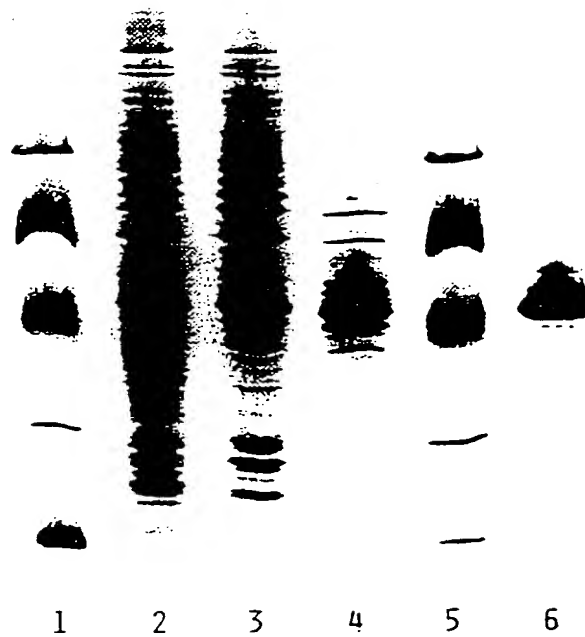


FIGURE 18

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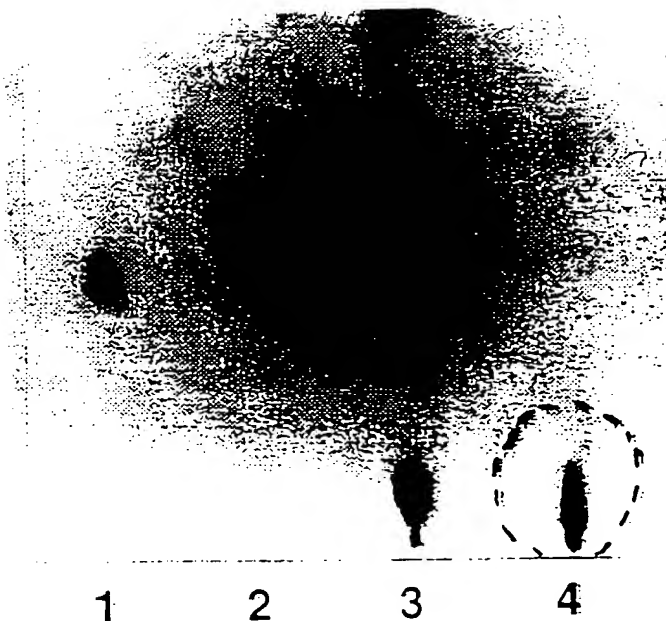


FIGURE 13

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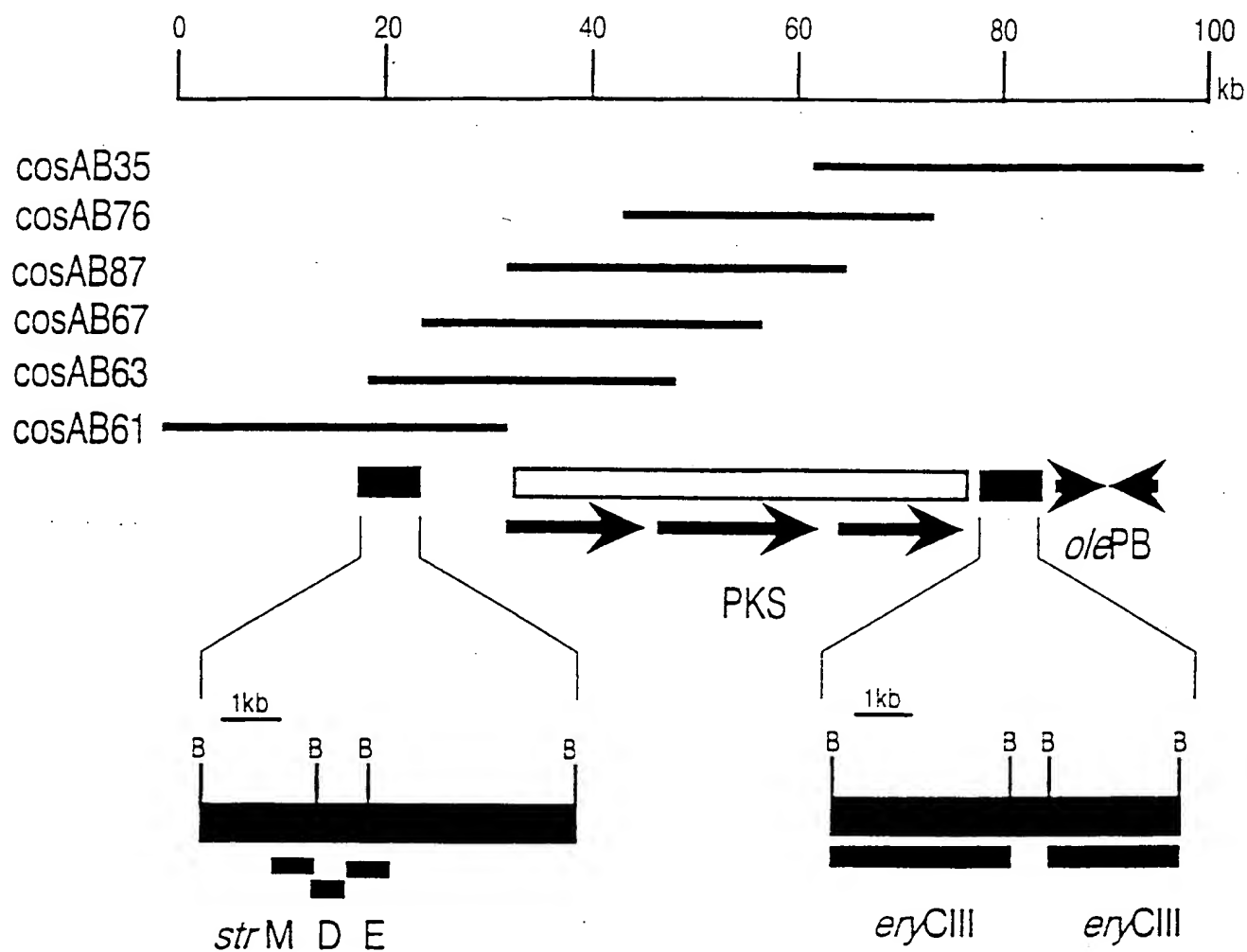


FIGURE 20

FIGURE 21

1 GCATGCCCGCGCTTTCCTCCCCCTCTCCGAACGCATCGACGCCGATCCCCCTCAGGGAC 60
61 CGGTGAAGGAGCGTGTTCACATCATGCAGGACATGCNAGGCGTACAGCCCCGAACACGCCA 120
121 GTGTGAAACACGCCGCGGACGCAGCTCGAACAGAGCGAACCGGGCCACGGAAGCCGCCCCAG 180

181 GAGATGGAGGACAGCGAACTGGGGGCGCGCCTGCAGATGCTCCGGCGGCATGCAGTGGGTC 240
M E D S E L G R R L Q M L R G M Q W V
OleP1
PstI
241 TTCGGCGCCCAACGGCGGATCCGTACGCCCGGCTGCTGTGTGGCATGGAGGATGACCCGTCA 300
F G A N G D P Y A R L L C G M E D D P S
301 CCTTTCTACGACGGGATACGGACCCCTGGCGGAGCTGCACCGGAGCAGACCGGAGCCTGG 360
P F Y D A I R T L G E L H R S R T G A W
361 GTCACCGCGCACCCCGGCTTCGGGGCGCGCATCCTCGCGACCGGAAGGCTCGGTGCCCG 420
V T A D P G L G G R I L A D R K A R C P
421 GAAGGCTCGTGGCCGGTGCGGGCGAAGACCGACGGGCTGGAGCAGTACGTGCTGCCCGGG 480
E G S W P V R A K T D G L E Q Y V L P G
481 CACCAGGCGTTTCCTGCGGCTGGAGCGCGAGGCGCGGAGCGGACTGCCGGAGGTCCGGCGG 540
H Q A F L R L E R E E A E R L R E V A A
541 CCGGTGCTGGGGGCGCGCGGTTCGACCGGTGGCGCGCGCTGATCGACGAGGTCTGCGCG 600
P V L G A A A V D A W R P L I D E V C A
601 GGGCTCGCGAAGGGGCTGCCGGACACGTTTCGACCTGGTCGAGGAGTACGCGGGGCTGGTG 660
G L A K G L P D T F D L V E E Y A G L V
661 CCGGTGAGGTGCTGGCGCGGATCTGGGGCGTCCCGGAGGAGGACCGCGCCCGGTTCCGG 720
P V E V L A R I W G V P E E D R A R F G

FIGURE 22

1381 GCCGCATGAGCATCGCGTCGAACGGCGCGGCTCGGCCCGCGGCCCTGCGCGTGA 1440
A A * V M
OleGI

1441 TGATGACCAACCTTCGGGGCCCAACACGCACTTCCAGCCGCTGGTTCCCTGGCCCTGGGCAC 1500
M T T F A A N T H F Q P L V P L A W A L

1501 TCGGACAGCCGGGCACGAGGTGCGCGTGGTGAGCCAGCCCTCGCTGAGCGACGTGGTGA 1560
R T A G H E V R V V S Q P S L S D V V T

1561 CGCAGGGGGGCTCACCTCGGTCCCGGTGGGCACCGAGGCTCCGGTCGAGCAGTTCCGCGG 1620
Q A G L T S V P V G T E A P V E Q F A A

1621 CGACCTGGGGCGACGATGCCCTACATCGGCGGTCAACAGCATCGACTTCACCGGCAACGACC 1680
T W G D D A Y I G V N S I D F T G N D P

1681 CCGGCCCTGTGGACGTGGCCCGTACCTCCTGGGCATGGAGACCATGCTGTGCGCGCCTTCT 1740
G L W T W P Y L L G M E T M L V P A F Y

1741 ACGAGTTGCTGAACAACGAGTCCCTTCGTGGACGGCGTAGTCGAGTTCGCCCGTGACTGGC 1800
E L L N N E S F V D G V V E F A R D W R

1801 GGCCCGACCTGGTGATCTGGGAGCCGCTGACGTTCCCGCGCGGTGGCGGCGCGGTCA 1860
P D L V I W E P L T F A G A V A A R V T

1861 CCGGCGGGCCACGCCCGGCTGCCGTGGGGCAGGAGATCACCCCTCGGCGGGCGGCAGG 1920
G A A H A R L P W G Q E I T L R G R Q A

1921 CGTTCCTCGCCGAGCGTGCCCTGCAACCGTTTCGAGCACCGGGAGGATCCACGGCCGAGT 1980
F L A E R A L Q P F E H R E D P T A E W

1981 GGCTGGGGCGCATGCTCGACCGGTACGGCTGCTCGTTCGACGAGGAGATGGTCACCGGGC 2040
L G R M L D R Y G C S F D E E M V T G Q

BamHI

FIGURE 22

FIGURE 22

2701 TGGCGGGAAGCGGTGAGACGATGCGCGTACTGTGCTGACCTGCTGCCAACGACACCCAC 2760
A G R R * M R V L L T C F A N D T H
OleG2

2761 TTCCACGGGCTGGTGGCGCTGGCGTGGCGCGCGCGGCGGACGAAGTCCGCGTG 2820
F H G L V P L A W A L R A A G H E V R V

2821 GCCAGTCAGCCCGCCCTGTCCGACACGATACCCCAAGCGGGACTGACCGCGGTGCCCGTG 2880
A S Q P A L S D T I T Q A G L T A V P V

2881 GGCGGGACACCGCCTTCCTGGAGCTGATGGGGGAGATCGGGCGGGACGTCCAGAAAGTAC 2940
G R D T A F L E L M G E I G A D V Q K Y

2941 TCCACGGCATCGACCTGGCGGTCCGCGCGGAGCTGACGAGCTGGGAGTACCTGCTCGGC 3000
S T G I D L G V R A E L T S W E Y L L G

3001 ATGCACAGACCCCTGGTGCCACAGTTCTACTCGCTGGTCAACGACGAGCCGTTGCTCGAC 3060
M H T T L V P T F Y S L V N D E P F V D

3061 GGGCTCGTCGGCTGACCCGGGCGCTGGCGGCGCCGACCTCATCCTGTGGGAGCACTTCAGC 3120
G L V A L T R A W R P D L I L W E H F S

3121 TTCGCGGGGCGTTGGCGGCGGCGGCCACCGGCACGCCCCACGCCCGCTGTGGGG 3180
F A G A L A A R A T G T P H A R V L W G

3181 TCGGACCTCATCGTCCGGTTCCGCGGGGACTTCCTCGGGAGCGGGCGGAACCGCGCGCC 3240
S D L I V R F R R D F L A E R A N R P A

3241 GAGACCGGAGGACCCCATGGCGGAGTGGCTGGGCTGGGGCGGCGCAACGGCTGGGCTCC 3300
E H R E D P M A E W L G W A A E R L G S

3301 ACCTTCGACGAGGAGCTGGTGACCGGGCAGTGGACGATCGACCCCGCTGCCGCGGAGCATG 3360
T F D E E L V T G Q W T I D P L P R S M

FIGURE 22

FIGURE 22

3961 AGCGCGGACGGGACGAGGAGGGGGAACCATGCGGGCTGACACGGAGCCGACCCGG 4020
S G G R G G G N H A G *
M R A D T E P T T G
oleM

BglII

4021 GTACGAGGACGAGTTCCCGGAGATCTACGACGCCGTGTACGGGGCGGCAAGGACTA 4080
Y E D E F A E I Y D A V Y R G R G K D Y

4081 CGCCGGGAGGCGAAGGACGTGGCGGACCTCGTGCGGACCGGGTGCCGGACGCGTCCTC 4140
A G E A K D V A D L V R D R V P D A S S

4141 CCTCCTGGACGTGGCCTGCGGCACGGGGCGGACCTGCGGCACTTCGCCACGCTCTTGA 4200
L L D V A C G T G A H L R H F A T L F D

4201 CGACGCCCCGGTCTCGAACTGTCCGGGAGCATGTGGACATCGCCCGCTCCCGCATGCC 4260
D A R G L E L S A S M L D I A R S R M P

4261 GGGCGTGCCGCTGCACCAAGGGGACATGCGATCCTTCGACCTGGGGCCACGCGTCTCCGC 4320
G V P L H Q G D M R S F D L G P R V S A

4321 GGTCACCTGCATGTTACGCTCCGTCCGGCCACCTGGCCACCAACCGCCGAACTCGACCGGAC 4380
V T C M F S S V G H L A T T A E L D A T

4381 GCTGCGGTGCTTCGCCCCGGCACACCGGCCCGGCGGTGGCCGTCATCGAACCGTGGTG 4440
L R C F A R H T R P G G V A V I E P W W

4441 GTTCCCGGAGACCTTCACCGACGGGTACGTGGCGGTGACATCGTACGCGTCGACGGCCG 4500
F P E T F T D G Y V A G D I V R V D G R

4501 GACCATCTCCCGGTGTCCCACTCCGTACGGGACGGGGCGGCCACCCGCGATGGAGATCCA 4560
T I S R V S H S V R D G G A T R M E I H

FIGURE 22

FIGURE 22

5221 CTGGCCGCCCGCCACCAACGTGGTGTGACGCGAGCAACGAGACGCCCCCACTG 5280
L A A R A T N V V L H A T T N E T P P L
5281 GACCGGCTGGCCCTGGCTACGAGTCCGACAAAGTGGGGCGGCTCCACTGGTTCAACCGG 5340
D R L A L R Y E S D K W G G V H W F T G
5341 CACTACGACCGGCACCTGCGGGCCGTGCGCGAGCCAGCGGTGGGATCCTGGAGATCGGC 5400
H Y D R H L R A V R D Q A V R I L E I G
5401 ATCGGGGGCTACGACGACCTGTGCTGCGAGCGGCGCCTCACTGAAGATGTGGAAGCGCTAC 5460
I G G Y D D L L P S G A S L K M W K R Y
5461 TTCCCGCGCGGCTGTCTTCGGCGTGGACATCTTCGACAGTGGCGGTGCGACGACCGCG 5520
F P R G L V F G V D I F D S R R A T S R
5521 GTGTCAAGACGCTCCGGGGCCCGGAGGACGACCCGGAGTTCATGCGCGCGTCCGCCGAG 5580
V S R R S A A R Q D D P E F M R R V A E
5581 GAGCACGGCGGCTTCGACGTCATCATCGACGAGCGGAGCCACATCAACGCACACATGCGG 5640
E H G P F D V I I D D G S H I N A H M R
5641 ACGTCGTTCTCGGTGATGTTCCCCACCTGCGCAACGGCGGCTTCTACGTCATCGAGGAC 5700
T S F S V M F P H L R N G G F Y V I E D
5701 ACCTTCACCTCCTACTGGCCCGGGTACGGAGGGGCCATCCGGAGCCCGGTGCCCGGA 5760
T F T S Y W P G Y G G P S G A R C P S G
5761 ACAACCGCGCTGGAGATGGTCAAGGGGACTGATCGACTCGGTGCACTACGAGGAGCGGCGG 5820
T T A L E M V K G L I D S V H Y E E R P

FIGURE 22

FIGURE 22